

D.8 Socioeconomics and Environmental Justice

This section describes the affected environment for Socioeconomics and Environmental Justice in Section D.8.1 and presents the relevant regulations and standards in Section D.8.2. Sections D.8.3 through D.8.5 describe the impacts of the Proposed Project and the alternatives. Section D.8.6 presents the mitigation measures and mitigation monitoring requirements, and D.8.7 lists references cited.

Socioeconomics identifies both the social and economic conditions found in the project area and considers how these conditions would be affected by the Proposed Project. Broadly, socioeconomics can include virtually any topic that touches on social and/or economic concerns. For the purposes of this EIS, socioeconomics includes population, housing, employment, and government revenues. The potential effect of the presence of nearby transmission lines on property values also is considered.

This section also presents an analysis of Environmental Justice, which considers whether minority and/or low-income populations in the project vicinity would be disproportionately affected by the Proposed Project.

D.8.1 Environmental Setting / Affected Environment

D.8.1.1 Regional Setting and Approach to Data Collection

D.8.1.1.1 Transmission System Upgrades

As described in Section B.2, the Proposed Project would be in southwestern San Bernardino and northwestern Riverside Counties, California. It would traverse unincorporated land in the counties, incorporated cities, Morongo Tribal lands, and land administered by the Bureau of Land Management (BLM). The central element of the Proposed Project is the upgrading of approximately 181 miles of transmission circuits within approximately 48 miles of right-of-way (ROW) connecting Devers Substation in Riverside County and the Vista and San Bernardino Substations in San Bernardino County. The upgrades would occur in the existing transmission corridor between the substations, except for a 3-mile portion of the Proposed Project on Morongo Tribal lands, which would be relocated to new ROW.

Data were collected on population (race and income), housing, and employment for areas within 0.5 miles of either side of the project's 220 kV ROW. Where this 1-mile-wide corridor intersects only a portion of a city or census tract, data for the entire city or census tract were collected. This 1-mile corridor constitutes the study corridor for analyzing Socioeconomics and Environmental Justice concerns. Where appropriate, and to provide context, countywide data are compared to data for the study corridor.

Regional and local socioeconomic and environmental justice information is presented in Sections D.8.1.1 through D.8.1.3. Data are from the Year 2010 U.S. Census. More recent 2012 5-year Census estimates were used where available.

D.8.1.1.2 Other Upgrades

In addition to the 220 kV upgrades, the Proposed Project includes:

- Upgrading substation equipment for 220 kV lines (Devers, El Casco, Etiwanda, San Bernardino, and Vista Substations)
- Removing 2 miles of 66 kV subtransmission lines and relocating them
- Removing and relocating 4 miles of 12 kV distribution lines
- Installing telecommunications lines and equipment

For the reasons explained below, these aspects of the Proposed Project are not considered further with regard to Socioeconomics and Environmental Justice.

Substation Upgrades. The work required inside Etiwanda Substations would consist of upgrades to and/or replacement of existing equipment. This would not have an environmental effect outside of the substations. For this reason, work at these substations is not considered further for Socioeconomic or Environmental Justice impacts.

Subtransmission Line and Distribution Line Upgrades. To upgrade the 220 kV lines in the Segment 1 ROW, approximately 2 miles of two existing 66 kV subtransmission circuits would be removed and rebuilt in new locations. One 66 kV line would extend from San Bernardino Substation to Timoteo Substation on Mountain View Avenue. The second 66 kV line would extend from near San Bernardino Substation to a connection with an existing 66 kV line on Barton Road. The relocation of these lines would not increase distribution system capacity. Erection of 66 kV poles along existing streets and ROWs would not contribute to the population growth and would not displace population or housing, which are socio-economic factors of concern. Consequently, these lines are not considered further with regard to socio-economic impacts.

All overhead segments of the 66 kV lines would be outside of census tracts having minority populations or income levels that would make them of concern for Environmental Justice. These thresholds of concern are whether the minority population percentage in a tract is greater than occurs in the county overall and whether the poverty level in a tract is greater than that found in the county overall. The underground sections of the 66 kV lines, as well as two underground segments of 12 kV distribution line fall within a tract that have potential Environmental Justice concerns. This census tract has a minority population of 68.1 percent, 1.3 percent higher than the San Bernardino countywide minority population of 66.8 percent. The only part of the underground 66 kV line near housing is an approximately 1,400-foot section that would be trenched in an alley leading to the Timoteo Substation located on Mountain View Avenue. This would involve digging an approximately 24 inches wide by 63+ inches deep trench in the alley to install the conduit. After the conduit and associated vaults are installed, the alley would be restored. New lines would be pulled through the installed conduit. Similarly, 12 kV distribution lines on Mission Road would be removed from poles and installed underground. Impacts related to these underground lines would be limited in duration and scope and impacts would not be disproportionate to impacts in other areas of project construction. Therefore, the 66 kV and 12 kV lines are not considered further in the evaluation of Environmental Justice.

D.8.1.2 Environmental Setting by Segment

Figure B-1 (in Section B) depicts the jurisdictions through which the Proposed Project would pass. In San Bernardino County, these include unincorporated land as well as the incorporated cities of San Bernardino, Loma Linda, Grand Terrace, Colton, and Redlands. In Riverside County, the areas through which the Proposed Project would pass include unincorporated land and the incorporated cities of Calimesa, Beaumont, and Banning. Cherry Valley and Cabazon are near the project alignment but not within the West of Devers study corridor; these locations are unincorporated population centers designated by the U.S. Census Bureau as Census Designated Places. The alignment also traverses the Morongo Tribal reservation and lands administered by BLM in Riverside County. The alignment crosses highways under the jurisdiction of the California Department of Transportation (Caltrans) in both counties.

Project Segments 1 and 2, and a portion of Segment 3, are in San Bernardino County. Approximately 70 percent of the project in San Bernardino County would be in developed areas and 30 percent would be in open space or sparsely developed land.

A large part of Segment 3 and all of Segments 4, 5, and 6 are in Riverside County. Approximately 20 percent of the land crossed by the Proposed Project in Riverside County would be in developed areas and 80 percent would be through open space or sparsely developed land.

D.8.1.2.1 Population, Housing, and Employment

Information was collected for the individual jurisdictions and census tracts potentially affected by the Proposed Project. Jurisdictional and census tract boundaries are not necessarily coincident; a jurisdiction may include many census tracts, and individual tracts may cross municipal boundaries. Maps are presented at the end of this section. Figure D.8-1 shows the location of the census tracts along the project alignment.

The collected information identifies current and projected population, housing availability, and employment. These data are provided in Tables D.8-1 (Population and Employment) and D.8-2 (Housing Availability).

Table D.8-1. Population and Employment

Location	2010 Total Population	2020 Projected Total Population ¹	Percent Change	2012 Total Employment	2012 Employment in Construction Trades
San Bernardino County	2,041,029	2,750,000	34.7%	806,463	60,574 (7.5%)
City of Colton	52,425	60,700	15.8%	21,155	1,750 (8.3%)
City of Grand Terrace	12,140	11,600	-4.4 %	6,096	498 (8.2%)
City of Yucaipa	51,319	55,800	8.7%	21,502	2,080 (9.7%)
City of San Bernardino	210,624	231,200	9.8%	72,995	5,953 (8.2%)
City of Redlands	69,078	75,500	9.3%	31,184	1,940 (6.2%)
City of Loma Linda	23,239	26,700	14.9%	10,440	282 (2.7%)
Riverside County	2,192,982	2,592,000³	18.2%	869,427	74,350 (8.6%)
City of Calimesa	7,932	14,800	86.6%	2,917	373 (1.3%)
City of Beaumont	36,687	56,500	54.0%	15,095	1,131 (7.5%)
Cherry Valley	5,311	N/A	—	2,007	202 (10.1%)
City of Banning	29,682	42,200	42.2%	9,132	790 (8.7%)
Cabazon	2,121	N/A	—	588	149 (25.3%)
City of Desert Hot Springs	26,474	43,500	64.3%	9,241	812 (8.8%)
City of Palm Springs	45,115	48,900	8.4%	19,778	1,349 (6.8%)

1 - Data not available for Cherry Valley, Cabazon, and Morongo Tribal Lands

Sources: U.S. Census Bureau, American Fact Finder, 2012a. 2012 ACS 5-Year Estimates, Category ID S2403, "Industry by Sex and Median Earnings in the Past 12 Months (In 2012 Inflation-Adjusted Dollars) for the Civilian Employed Population 16 Years and Older," found at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S2403&prodType=table. Accessed April 10, 2014.

Southern California Association of Governments, 2012. Regional Transportation Plan 2012, Growth Forecast Appendix, April 2012, found at: http://rtpsc.scaag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf. Accessed April 10, 2014

U.S. Census Bureau, American Fact Finder, 2012b. 2012 ACS 5-Year Estimates, Category ID B03002 "Not Hispanic or Latino, White Alone," found at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_B03002&prodType=table. Accessed March 19, 2014.

Table D.8-2. Housing Availability

Location	Number of Units	Number of Vacant Units ¹	Rental Vacancy Rate ²
San Bernardino County	698,715	99,017	6.9%
City of Colton	16,497	1,656	10.0%
City of Grand Terrace	24,790	1,197	4.8%
City of Yucaipa	19,030	1,676	7.7%
City of San Bernardino	64,997	5,844	8.0%
City of Redlands	26,524	2,015	7.9%
City of Loma Linda	9,476	958	4.5%
Riverside County	799,360	122,742	7.6%
City of Calimesa	3,615	388	0.0%
City of Beaumont	13,312	1,291	6.3%
Cherry Valley	2,569	239	0.0%
City of Banning	13,860	1,573	7.4%
Cabazon	751	87	0.0%
City of Desert Hot Springs	11,316	2,581	14.7%
City of Palm Springs	36,034	13,165	12.0%

1 - Number of Vacant Units includes vacant homes for sale.

2 - Rental Vacancy Rate excludes vacant homes for sale; this is why some jurisdictions show Vacant Units but no Rental Vacancy.

Source: U.S. Census Bureau, American Fact Finder, 2012c. 2012 ACS 5-Year Estimates, Category ID DP04, "Selected Housing Characteristics," found at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_DP04&prodType=table. Accessed April 10, 2014.

D.8.1.2.2 Income and Revenue

SCE estimates that over a 12-year period (2008-2019), the WOD project would generate nearly \$790 million in wages and \$244 million in non-labor purchases, for a total of over \$1 billion (SCE, 2014). These direct expenditures would have a multiplier effect in the economy, with the direct expenditures for labor and materials creating new jobs elsewhere in the economy. It is estimated that for every \$1 million of proposed SCE expenditure, four jobs would be created in the California economy during the project's construction, meaning that for each direct job created by the Proposed Project, indirect and induced impacts would produce more than one additional job in the study area (SCE, 2014).

Public Revenues. SCE pays three primary taxes or fees: property tax; sales (our use) tax; and franchise fees. SCE also pays local fees to the various cities and counties within the project area, such as business license fees.

Property Taxes – Utility company assets, including transmission lines and substations, are assessed annually by the State Board of Equalization to determine the allocable assessed value to the various counties in which SCE currently has property and assets. The counties, in turn, determine SCE's property tax liability based on the allocated assessed value and the applicable property tax rate.

Currently, based on net book value (as of 12/31/2013), SCE's property tax liability related to existing West of Devers assets is approximately \$172,000. Riverside County receives approximately \$125,000 and San Bernardino County receives approximately \$47,000.

By the estimated completion of the Proposed Project (2019/2020), the annual property tax liability related to the WOD Upgrade Project assets is anticipated to increase to approximately \$13 million (SCE, 2014). Therefore, Riverside County's allocable portion may yield additional annual property tax revenues of

approximately \$9.4 million; San Bernardino County's annual property tax revenues from the WOD Upgrade Project assets may increase to approximately \$3.6 million (SCE, 2014).

Sales (or Use) Taxes – A sales or use tax is imposed by the State of California for the sale, or storage, use or consumption of tangible personal property in the state. The current sales or use tax rate for the project area (Riverside and San Bernardino Counties) is 8 percent. This rate consists of a statewide sales tax base rate of 7.5%, which is comprised of 6.25 percent state, 0.25 percent county, and 1 percent local. In the project area, the additional 0.5 percent rate, which makes up the 8 percent total tax rate, is a district tax charged by Riverside and San Bernardino Counties. The current statutory allocations for the State and County portions go to the State's General Fund, Fiscal Recovery Fund, Local Public Safety Fund, State's Education Protection, and health and social services programs. The Local portion goes to county transportation funds and city/county operations. The District portion would go to the San Bernardino County Transportation Authority and the Riverside County Transportation Commission. Because the majority of the existing WOD facilities have been in place since they were constructed between 1945 and 1975, there have been minimal sales or use tax contribution toward the state, county, and local economies in the project area over recent years related to the existing WOD facilities.

The anticipated one-time sales or use tax contribution to the state and local economies from the WOD Upgrade Project is estimated to be approximately \$11.2 million (SCE, 2014). The distribution based on current allocation of the 8 percent sales tax is as follows: state \$8.7 million (6.25 percent); counties \$ 0.4 million (0.25 percent); local \$1.4 million (1.00 percent); and districts \$0.7 million (0.50 percent) (SCE, 2014).

Franchise Fees – SCE obtains grants of franchise from local governments that generally grant SCE the ability to install, construct, use, alter, maintain and operate its electrical distribution and transmission system for the purpose of conducting, transforming and distributing electricity under, along, across or upon the public streets, ways, alleys, and places within a local government's franchise area. SCE pays a franchise fee to these local governments for its franchise grants that is based on 2 percent of gross annual receipts arising from use, operation, or possession of the franchise, but not less than 1 percent of gross annual receipts derived from the sale of electricity within the limits of the City, plus a Direct Access Municipal Surcharge. Based on a high-level estimate, SCE estimated a collective approximate \$12 million in franchise fees were paid to local governments within the WOD Project area in 2013.

SCE estimates an annual increase of approximately 1 to 2 percent in franchise fees as a result of the WOD Upgrade Project (SCE, 2014). This equates to an annual increase of approximately \$100,000 to \$250,000 in franchise fee payments to local governments once the project is in service (SCE, 2014).

Secondary Tax Revenues – Additionally, indirect tax revenues related to the project would be derived from the wages paid to workers (income tax) and the purchases they make using those wages (sales tax). Over the course of project implementation through 2019, SCE estimates that the project would result in approximately \$790 million in labor cost and \$244 million in non-labor (material and other) costs. This expenditure, as noted in the discussion above of the contribution to the regional and state economy, would have a multiplier effect, creating new jobs whose employees would also pay income and sales tax.

D.8.1.2.3 Environmental Justice

Environmental justice evaluates impacts to minority and low-income populations. Census data on race and income were used to identify both minority populations and populations living below the federal poverty limit. The individual census tracts for which information was collected are shown in Figure D.8-1 (Census Tracts used in Socioeconomic Analysis). Table D.8-3 (Minority Population by Census Tract), Table

D.8-4 (Minority Population by Jurisdiction), and Table D.8-5 (Population with Income Below Poverty Level by Census Tract) provide data on race and income for census tracts along the project route. If any part of a census tract falls within the 1-mile-wide study corridor, the entire tract is included in this analysis.

Minority Populations

For purposes of this analysis, a minority population consists of those who identified themselves as being a member of a non-white race (or races), plus those indicating their ethnicity is Hispanic or Latino, regardless of how they indicated race. The 2010 Census asked people to indicate if they were ethnically Hispanic or Latino and also asked people to indicate their race or races. These separate questions resulted in some people indicating that ethnically they considered themselves Hispanic or Latino and racially they considered themselves white, while others indicating a Hispanic or Latino ethnicity indicated different races from white, including Other. To be conservative, all persons indicating a Hispanic or Latino ethnicity are included in the minority population race count, regardless of whether they indicated their race as white or another classification.

Based on 2012 data, 21 of the 32 census tracts within the study area are more than 50 percent minority. In the past, this would have flagged these as tracts of concern. This concern would be with regard to the proportion of project impacts being experienced by this population as compared to the regional population generally. However, the racial make-up of California and other states has changed over time; no one racial group is a majority. Rather than using 50 percent minority as the threshold for identifying minority tracts, the percent minority (non-white) population of the entire county was used as a threshold. It was found that in 9 of the 32 census tracts in the study area the percentage minority population is greater than the percentage minority population countywide. Seven of these higher than average minority tracts are in San Bernardino County and 2 are in Riverside County.

Table D.8-3 also shows the variance between the countywide minority population percentage and the minority population percentage in individual tracts. The 9 tracts where the minority population percentage exceeds the countywide minority population percentage are indicated in **bold**. The variance column in the table indicates the degree to which the minority population percentage of a tract varies from the countywide percentage. A positive value in the variance column indicates the minority population percentage for that Census Tract is higher than the countywide percentage; a negative value indicates a minority population percentage lower than the countywide minority percentage.

Table D.8-3. Minority Population by Census Tract^{1,2}

Census Tract Number	Total Population	Minority Population	Percent Minority	Variance from Countywide Minority Population (%)
San Bernardino County	2,041,029	1,363,925	66.8	—
Census Tract 71.04	4405	2452	55.7	-11.1
Census Tract 71.05	3048	1878	61.6	-5.2
Census Tract 71.06	4296	2033	47.3	-19.5
Census Tract 71.07	3147	2224	70.7	3.9
Census Tract 71.08	2109	1816	86.1	19.3
Census Tract 71.09	6833	5407	79.1	12.3
Census Tract 71.10	5523	3800	68.8	2
Census Tract 72	7067	5736	81.2	14.4
Census Tract 73.02	9843	5628	57.2	-9.6
Census Tract 73.03	4656	2851	61.2	-5.6

Table D.8-3. Minority Population by Census Tract^{1,2}

Census Tract Number	Total Population	Minority Population	Percent Minority	Variance from Countywide Minority Population (%)
Census Tract 73.05	3924	2829	72.1	5.3
Census Tract 73.06	5640	3839	68.1	1.3
Census Tract 78	4349	2417	55.6	-11.2
Census Tract 85	8672	2245	25.9	-40.9
Subtotal for Tracts	69,107	42,703	61.8	-5
Riverside County	2,192,982	1,325,402	60.4	—
Census Tract 424.01	2068	1298	62.8	2.4
Census Tract 424.12	5441	2752	50.6	-9.8
Census Tract 438.07	5552	2889	52.0	-8.4
Census Tract 438.09	2830	590	20.8	-39.6
Census Tract 438.10	4623	1960	42.4	-18
Census Tract 438.11	3810	1100	28.9	-31.5
Census Tract 438.13	3811	2056	53.9	-6.5
Census Tract 438.14	726	32	4.4	-56
Census Tract 438.18	3862	2092	54.2	-6.2
Census Tract 438.21	2796	1648	58.9	-1.5
Census Tract 438.22	2337	1210	51.8	-8.6
Census Tract 438.23	6992	3109	44.5	-15.9
Census Tract 439	6002	3495	58.2	-2.2
Census Tract 441.03	6012	3093	51.4	-9
Census Tract 441.04	2673	1135	42.5	-17.9
Census Tract 442	5301	4192	79.1	18.7
Census Tract 445.21	707	333	47.1	-13.3
Census Tract 445.22	4912	2485	50.6	-9.8
Subtotal for Tracts	70,455	35,469	50.4	-10

1 - Minority population consists of those who identifying themselves as being a member of a non-white race or races plus those indicating their ethnicity is Hispanic or Latino. The 2010 Census asked people to indicate if they were ethnically Hispanic or Latino. It also asked people to indicate if they were white or another race or races. These separate questions resulted in some people indicating that ethnically they considered themselves Hispanic or Latino and racially they considered themselves white. Some of those indicating they are ethnically Hispanic or Latino persons indicated different races, including Other. To be conservative, all persons indicating a Hispanic or Latino ethnicity are included in the minority population race count, regardless of whether they indicated their race as white or another classification.

2 - **Bold** indicates tracts with a greater percentage of minority population than is found in the county as a whole. The variance from the county average is calculated based on the countywide percentage [66.8 percent in San Bernardino County and 60.4 percent in Riverside County]. For example, if the minority population countywide is 66.8 percent, a 10 percent variance would be 6.7 percent [66.8 X 0.10 = 6.68].

Source: U.S. Census Bureau, American Fact Finder, 2012b. 2012 ACS 5-Year Estimates, Category ID B03002 "Not Hispanic or Latino, White Alone," found at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_B03002&prodType=table. Accessed March 19, 2014.

Looking at the project vicinity more broadly than the census tracts, Table D.8-4 provides data on total population, minority population, and minority population percentage for San Bernardino and Riverside Counties as a whole, and for individual jurisdictions on or near the study corridor. The jurisdictions cover a larger area than individual census tracts and provide context for determining whether there would be a disproportionate impact on minority populations. Figure B-1 (in Section B) shows the county and municipal jurisdictions, Morongo Tribal lands, and BLM lands occurring in the project vicinity. Jurisdictions where a minority population percentage exceeds the county level of minority population are indicated in **bold**.

Table D.8-4. Minority Population by Jurisdiction^{1,2}

Jurisdiction	Total Population	Minority Population	Percent Minority
San Bernardino County	2,041,029	1,363,925	66.8
Colton	52,425	45,631	87.0
Grand Terrace	12,140	6,600	54.4
San Bernardino	210,624	169,486	80.5
Redlands	69,078	31,196	45.2
Loma Linda	23,239	14,518	62.5
Yucaipa	51,319	17,861	34.8
Riverside County	2,192,982	1,325,402	60.4
Beaumont	36,687	19,933	54.3
Calimesa	7,932	1,969	24.8
Banning	29,682	15,490	52.2
Cabazon	2,121	1,059	49.9
Palm Springs	45,115	16,816	37.3
Desert Hot Springs	26,474	18,102	68.4
Cherry Valley	5,311	1,230	23.2
Morongo Tribal Land	710	652	91.8

1 - Minority population consists of those who identifying themselves as being a member of a non-white race or races plus those indicating their ethnicity is Hispanic or Latino. The 2010 Census asked people to indicate if they were ethnically Hispanic or Latino. It also asked people to indicate if they were white or another race or races. These separate questions resulted in some people indicating that ethnically they considered themselves Hispanic or Latino and racially they considered themselves white. Some persons indicating they are ethnically Hispanic or Latino persons indicated different races, including Other. To be conservative, all persons indicating a Hispanic or Latino ethnicity are included in the minority population race count, regardless of whether they indicated their race as white or another classification.

2 - **Bold** indicates jurisdictions with a minority population higher than the countywide percent minority.

Source: U.S. Census Bureau, American Fact Finder, 2012b. 2012 ACS 5-Year Estimates, Category ID B03002 "Not Hispanic or Latino, White Alone," found at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_B03002&prodType=table. Accessed March 19, 2014.

Low-Income Populations

Low-income populations were identified using the annual statistical poverty thresholds for the Bureau of the Census' Current Populations Reports, Series P-60 on Income and Poverty. Census data from 2012 were used to determine the portion of a census tract's population that is living below the federal poverty level and how this compares to the poverty status of the countywide population and individual jurisdiction populations. Tables D.8-5 and D.8-6 provide this information for the Proposed Project. Overall, for San Bernardino County, 17.6 percent of the county's population is below poverty level; in Riverside County it is 15.6 percent. These percentages are used as the low-income threshold for the respective counties for purposes of evaluating Environmental Justice. Tracts or jurisdictions with a greater percentage of persons below the poverty level than the countywide percentage are considered low-income tracts or jurisdiction. These are shown in **bold** in the tables.

Table D.8-5. Population with Income Below Poverty Level by Census Tract^{1,2}

Census Tract	Total Population	Population Below Poverty Level	Percent Below Poverty Level
San Bernardino County	1,995,666	350,982	17.6
Census Tract 71.04	4377	68	1.6
Census Tract 71.05	3048	592	19.4

Table D.8-5. Population with Income Below Poverty Level by Census Tract^{1,2}

Census Tract	Total Population	Population Below Poverty Level	Percent Below Poverty Level
Census Tract 71.06	4291	414	9.6
Census Tract 71.07	3128	986	31.5
Census Tract 71.08	2109	399	18.9
Census Tract 71.09	6659	1180	17.7
Census Tract 71.10	5471	303	5.5
Census Tract 72	6935	2513	36.2
Census Tract 73.02	9562	895	9.4
Census Tract 73.03	4463	983	22
Census Tract 73.05	3912	880	22.5
Census Tract 73.06	5475	343	6.3
Census Tract 78	4349	739	17
Census Tract 85	8672	372	4.3
Subtotal for Tracts	72,451	10,667	14.7
Riverside County	2,157,713	335,557	15.6
Census Tract 424.01	2003	179	8.9
Census Tract 424.12	5433	259	4.8
Census Tract 438.07	5456	948	17.4
Census Tract 438.09	2781	397	14.3
Census Tract 438.10	4623	215	4.7
Census Tract 438.11	3810	264	6.9
Census Tract 438.13	3788	921	24.3
Census Tract 438.14	726	44	6.1
Census Tract 438.18	3786	111	2.9
Census Tract 438.21	2796	530	19
Census Tract 438.22	2337	205	8.8
Census Tract 438.23	6971	185	2.7
Census Tract 439	5950	978	16.4
Census Tract 441.03	5839	1002	17.2
Census Tract 441.04	2667	137	5.1
Census Tract 442	5267	1932	36.7
Census Tract 445.21	707	148	20.9
Census Tract 445.22	4912	977	19.9
Subtotal for Tracts	69,852	9432	13.5

1 - When calculating the number of persons living below the poverty line, the Census omits persons in group living situations such as group homes, institutions, jails, etc. This results in a slightly smaller total population as compared to other data dealing with total population characteristics.

2 - **Bold** indicates tracts with poverty levels higher than the countywide poverty level.

Source: U.S. Census Bureau, American Fact Finder, 2012d. 2012 ACS 5-Year Estimates, Category ID S1701 "Poverty Status in the Past 12 Months" found at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S1701&prodType=table. Accessed March 19, 2014.

Looking at the project vicinity more broadly, Table D.8-6 provides poverty-level data for the two counties county wide, as well as for municipal jurisdictions along or near the Proposed Project alignment and for Morongo Tribal lands.

Table D.8-6. Population with Income Below Poverty Level by Jurisdiction^{1,2}

Jurisdiction	Total Population	Population Below Poverty Level	Percent Below Poverty Level
San Bernardino County	1,995,666	350,982	17.6
Colton	52,114	11,759	22.5
Grand Terrace	11,984	780	6.5
San Bernardino	205,669	62,976	30.6
Redlands	66,531	7,655	11.5
Loma Linda	22,705	3,223	14.2
Yucaipa	50,784	5,926	11.7
Riverside County	2,157,713	335,557	15.6
Beaumont	36,286	4,082	11.2
Calimesa	7,926	1,148	14.5
Banning	28,944	5,606	19.4
Cabazon	2,098	592	28.2
Palm Springs	44,827	7,082	15.8
Desert Hot Springs	26,291	7,510	28.6
Cherry Valley	5,253	496	9.4
Morongo Tribal Lands	710	237	33.4

1 - When calculating the number of persons living below the poverty line, the Census omits persons in group living situations such as group homes, institutions, jails, etc. This results in a slightly smaller total population as compared to other data dealing with total population characteristics.

2 - **Bold** indicates jurisdictions with poverty levels higher than the countywide poverty level.

Source: U.S. Census Bureau, American Fact Finder, 2012 ACS 5-Year Estimates, Category ID S1701 "Poverty Status in the Past 12 Months" found here http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_5YR_S1701&prodType=table. Accessed March 19, 2014

Table D.8-7 lists by segment the amount of ROW in the segment and what part of the ROW is within 0.5 miles of a minority or low income census tract.

Table D.8-7. Length of ROW with Environmental Justice Census Tracts within 0.5 Miles

Location	Length of ROW Total	Length of ROW with Env Justice Tracts within 0.5 miles ¹	Length of ROW with Minority Tracts within 0.5 miles ²	Length of ROW with Low Income Tracts within 0.5 miles ²
Segment 1: San Bernardino	3.5 mi	2.5 mi	2.5 mi	2 mi
Segment 2: Colton and Loma Linda	5.2 mi	1.8 mi	1.8 mi	1.8 mi
Segment 3: San Timoteo Canyon	13 mi	0.8 mi	0.8 mi	0.8 mi
Segment 4: Beaumont and Banning	12.2 mi	3.5 mi	3.5 mi	0.5 mi
Segment 5: Morongo Tribal Land and Surrounding Areas	9.5 mi	9.5 mi	9.5 mi	2.1 mi
Segment 6: Whitewater and Devers	5.1 mi	5.1 mi	0 mi	5.1 mi
Total	48.5 mi	23.2 mi	18.1 mi	12.3 mi
Percentage	100 %	47.8 %	37.3 %	25.3 %

1 - Environmental Justice census tracts are those with populations meeting the criteria for minority tracts, low-income tracts, or both. If a tract meets both minority and low-income criteria, it is counted only once when determining the length of ROW occurring within 0.5 miles of tracts where Environmental Justice concerns exist.

2 - Census Tracts with Environmental Justice populations (minority tracts and low-income tracts) are identified for reference. The sum of these two columns may be less than the length of ROW with Environmental Justice Tracts within 0.5 miles because, even if tracts meet both minority and low-income criteria, they are counted only once when determining the length of ROW falling within 0.5 miles of an Environmental Justice tract.

Source: Aspen Environmental Group: Estimated from project route maps and census tract maps.

D.8.1.3 Environmental Setting for Connected Actions

To the extent that connected actions are on federal land they will need to consider socioeconomic and environmental justice impacts, as required under NEPA, BLM guidance, and Executive Orders. Projects on state or private land are not required to consider these impacts. All of the connected action projects are in sparsely inhabited areas.

Desert Center Area. There are 4 connected actions identified in the Desert Center area. Three would be solar PV projects occupying a combined total of approximately 3,600 acres. One of these, the approved Desert Harvest Solar Project is 1,200 acres, and is estimated to need an average on-site construction workforce of 100 persons and a peak workforce of 250 persons. The 2 other solar PV projects in this area together are assumed to be approximately 2,400 acres, or twice the size of Desert Harvest, and would require a combined average daily construction workforce of 200 and a peak of 500. In addition to the 3 solar PV projects, the 500 MW Palen Solar Power Project would be approximately 10 miles east of Desert Center. This would be a solar trough project with a daily workforce of nearly 600, and a peak workforce of nearly 1,150.

If the 4 projects were built simultaneously, the potential average daily workforce in the Desert Center area would be 900. If the peak workforce needs of the projects overlapped, that would result in 1,450 workers being at the 4 sites.

The Desert Center area is within a single large, sparsely inhabited census tract (Census Tract 469). The tract extends across Riverside County, from San Bernardino County to Imperial County, and encompasses nearly all of the 100 miles between Indio and Blythe. As reported in the Desert Harvest Solar Project Final EIS, in 2010, the minority population in the tract was 55.41 percent of the total population, as compared to a minority population of 60.5 percent in Riverside County as a whole. The CEC's 2010 Decision identified that Desert Center (as a Census Designated Place within the tract) has a 58 percent minority population. While no recent data are available for the proportion of the population living below the poverty line in this tract, 2000 data indicate that 28 percent of the population in the area lived below the poverty line.

The only population center in the area is Desert Center, including Lake Tamarisk. The 2014 PMPD identified that Desert Center had a 2010 population of 204 persons. For the 140 housing units here, there was a vacancy rate (for sale and for rent) of 39 percent. The closest municipalities are Blythe, 48 miles to the east, and Indio, 49 miles to the west. In Blythe and Indio there are about 35 lodging facilities offering an average of approximately 55 rooms per facility.

The Desert Harvest EIS reported that research shows that construction workers would commute as much as two hours each direction from their communities rather than relocate. As noted for the Proposed Project, a substantial workforce resides in western Riverside County. It is assumed that most workers would commute from their homes to project sites. Any workers who would temporarily relocate to the region for construction jobs could be accommodated in temporary accommodations in Blythe to the east or to the west in the greater Palm Spring-Coachella Valley area, or even farther west in Beaumont and Banning, which are under 2 hours from Desert Center.

Blythe Area. Three connected actions in the Blythe area would be solar PV projects covering about 4,200 acres. A comparable project in terms of acreage is the 3,660-acre Blythe Mesa Solar Project. The EIR/EA for the Blythe Mesa project estimated the daily workforce to be 500 during peak construction. No daily average was provided. By comparison, the 1,200-acre Desert Harvest project is about 1/3 the size and estimated peak construction to require 250 workers, with a daily average of 100. The variation can be

attributed to the phasing of construction and the particulars of facility design. Using the Desert Harvest workforce estimates and considering the 4,200 acres the 3 Blythe area projects, it is likely that the combined projects would require a daily workforce of about 350 and would have combined peak workforce of about 875.

Based on the size of the project, it is assumed that the other 2 connected action projects would have a combined need for 500 to 600 workers during peak construction periods. Together, simultaneous development of the 3 projects could require in the neighborhood of 1,000 workers during peak times. The average workforce would be less.

The nearest city is Blythe, with a 2010 population of just over 20,000. The nearest population center within 2 hours of Blythe is the Coachella Valley, with a population of over 350,000. El Centro, in Imperial County, has a population of over 40,000 and also is about 2 hours away. As noted for the Desert Center area, construction workers generally are willing to travel up to 2 hours from their homes to a project site, instead of relocating. The workforce for these projects in the Blythe area is anticipated to be from Riverside and Imperial Counties, with additional workers from La Paz County, Arizona. To the extent that workers might want to relocate temporarily, there are numerous hotels and accommodations in Blythe, and the 2010 Census identified 960 vacant residential units, or 17.5% of the total in the city.

D.8.2 Applicable Regulations, Plans, and Standards

D.8.2.1 Federal

Socioeconomics

National Environmental Policy Act (NEPA). Projects that require action by a federal agency or that receive federal funding are subject to NEPA (42 United States Code [USC] 4321 et seq.). The Proposed Project includes a new 220 kV transmission line for approximately 3 miles within the Morongo Band of mission Indians lands, which are held in trust by the Secretary of the Interior, and a portion of the Proposed Project also is located on lands managed by BLM. Therefore, the Proposed Project is subject to NEPA review because those agencies and other federal agencies must take action to approve various right-of-way grants, easements and permits associated with the Proposed Project. NEPA Section 102(2)(A) requires that federal agencies use “the natural and social sciences...in planning and decision making.” Under NEPA, an EIS must discuss social and economic effects if they are related to the natural or physical effects. Consequently, an EIS must include an analysis of the proposed Project’s economic, social, and demographic impacts as they relate to effects on the natural or physical environment in the affected area. These economic, social, and demographic effects are not to be analyzed in isolation from the physical environment.

Federal Land Policy and Management Act (FLPMA) of 1976. FLPMA (43 USC 1701 et seq.) is BLM’s organic act that establishes the agency’s multiple-use mandate to serve present and future generations. Regulations implementing FLPMA require BLM to collect and analyze social, economic, and institutional information (43 CFR 1610.4-3 and 1610.4-6).

BLM Land Use Planning Handbook H-1601-1, Appendix D. Handbook H-1601-1 Appendix D (Social Science Considerations in Land Use Planning) provides guidance on integrating social science information into the planning process.

Environmental Justice

Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations. Executive Order 12898 was signed by President William Clinton on February 11, 1994. Since then, environmental justice is a mandatory element to be considered in all Bureau of Land Management (BLM) land use planning and National Environmental Policy Act (NEPA) documents.

As defined in BLM’s Land Use Planning Handbook H-1601-1, Appendix D, 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. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, state, local, and Tribal programs and policies.” (p.11, BLM, 2005)

The purpose of the Executive Order and BLM guidance is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. The Executive Order directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order also directs each agency to develop a strategy for implementing environmental justice.

Specific guidance is provided in BLM Handbook H-1601-1, Appendix D: Social Science Considerations in Land Use Planning Decisions, Section IV Environmental Justice Requirements.

D.8.2.2 State

D.8.2.2.1 Socioeconomics

California Environmental Quality Act. CEQA Guidelines Appendix G: Environmental Checklist Form is widely used by California agencies and jurisdictions to identify potentially significant impacts. As appropriate to the project under review, agencies and jurisdictions add and delete topics to be considered. One topic identified as having the potential to be affected is population and housing. With regard to population and housing, the questions posited in Appendix G focus on whether a proposed project’s environmental effects could induce population growth, displace existing housing, or displace people, which, in turn, would require new or replacement housing be constructed. The effects on the environment of population increases or of developing new housing would be considered in the CEQA analysis.

CEQA Guidelines Section 15131 (Economic and Social Effects) notes that “economic or social information may be included in an EIR”; however, “economic or social effects of a project shall not be treated as significant effects on the environment.” The focus of the analysis in the EIR is to be on physical changes, and the Public Resources Code Section 21060.5 defines “environment” as “the physical conditions that exist with the area which will be affected by a proposed project...”

CEQA Guidelines Section 15131, states the following:

Economic or social information may be included in an EIR or may be presented in whatever form the agency desires.

- a) Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the

economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

- b) Economic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant. As an additional example, if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment. The religious practices would need to be analyzed only to the extent to show that the increase in traffic and noise would conflict with the religious practices. Where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant.
- c) Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project.

Consistent with the requirements set forth in Section 15131, social and economic effects, per se, are not treated as significant effects on the environment.

D.8.2.2.2 Environmental Justice

There are no requirements applicable to all State agencies requiring an analysis of environmental justice. The analysis conducted using the federal guidance will satisfy applicable State requirements, to the extent they may apply to the Proposed Project.

Public Resources Code Section 71110-71116. One state agency, the California Environmental Protection Agency (CalEPA), is required to conduct its programs, policies, and activities that substantially affect human health or the environment in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority populations and low-income populations of the state.

D.8.2.3 Local

D.8.2.3.1 Socioeconomics

There are no local regulations, plans, or standards known to apply to the Proposed Project with respect to socioeconomics. Local plans are considered by the CPUC and the BLM in determining the proposed Project's consistency with local plans, goals, and policies. As the CPUC has preemptive jurisdiction over the construction, maintenance, and operation of public utilities on non-federal lands in the state, no local discretionary permits (e.g., conditional use permits) or local plan consistency evaluations are required for the Proposed Project. However, SCE would be required to obtain all ministerial building and encroachment permits from local jurisdictions.

Each county and local General Plan is required by the state to include seven mandatory elements: Circulation, Conservation, Housing, Land Use, Noise, Open Space, and Safety. General Plans may include non-mandatory elements, such as socioeconomics, at the discretion of the local jurisdiction.

D.8.2.3.2 Environmental Justice

There are no known local regulations, plans, or standards with respect to environmental justice applicable to the Proposed Project.

D.8.3 Environmental Impacts of the Proposed Project

D.8.3.1 Approach to Impact Assessment

D.8.3.1.1 Socioeconomics

Socioeconomics relates to any combination of social and economic factors. The socioeconomic impact assessment in this EIS considers 4 key factors: existing and projected population, rental housing vacancy rates, percent of the workforce in construction trades, and income and revenue generation due to the project. These are used to determine if project implementation would result in any of the following: a substantial increase in population due to workers moving to the region to work on the project; insufficient rental housing to accommodate any workers relocating to work on the project; insufficient numbers of construction workers to fill jobs; and changes in local economies and government revenue.

If workers move to the area, they would require housing. The vacancy rate in rental units indicates whether there is available housing for transient workers.

Transmission line, fiber optic line, and substation construction require a mix of skills. Many skills are available locally; other skills are specialized to the electrical industry. Workers with specialized skills often relocate temporarily from elsewhere to work on a project. The number of workers in the construction trades locally indicates the labor pool that may be available to work on the project. In addition to the labor pool in the immediate vicinity of the project, the larger regional labor pool can also contribute to the potential workforce, as construction workers typically work throughout the region in which they reside.

Whether a transmission line may adversely affect property values is a concern of property owners. The potential for transmission lines to affect property values has been debated and studied. Numerous studies over the past several decades have been inconclusive, reaching varying and sometimes opposite conclusions with regard to what degree and under what conditions the presence of a high-voltage transmission line may affect the value of nearby properties. A review of the literature is provided as part of the impact analysis.

Construction projects can generate positive economic effects through wages paid to workers and the purchase of materials, goods, and services needed to implement the project. The injection into the economy of this money has a multiplier effect, supporting additional new spending by the initial recipients (workers, suppliers, and business owners). Wages earned at the businesses providing goods, materials, and services to workers and to the project are used by business owners and employees for their own subsequent purchases. This direct and indirect economic activity can be a positive contribution to the local community's economic well-being. As well, taxes and fees imposed on the Proposed Project would generate government revenue.

D.8.3.1.2 Environmental Justice

Race and income are parameters used to evaluate if a project's impacts would be disproportionately visited on groups that historically have been disadvantaged in our society. Under NEPA, federal agencies

are required to evaluate whether a minority population or a low-income population would receive a disproportionate share of impacts from a proposed project. This concern is addressed through an analysis of U.S. Census data that report (1) the level (percentage) of minority population in a census tract and (2) the percentage of the population in a tract with an income at or below the federal poverty level.

The occurrence of a census tract near the Proposed Project with a higher minority population level or higher rate of poverty than occurs countywide does not mean that the Proposed Project would have an environmental justice impact on these residents. The ultimate standard is whether impacts are disproportionately imposed on these populations of concern, as compared to the region more broadly. In the case of a linear project such as a transmission line, this would be the population in tracts along and near the line.

Once a population of concern is identified, factors to be considered include:

- The geographic location of potentially affected residents within the tract relative to the location of the project. (For example, large tracts may have extensive vacant areas separating residents and the project. Examination of air photos reveals housing locations in the tract relative to the project. This provides a means for understanding how close residents are to the project and, therefore, to project impacts.)
- The nature, duration, and severity of any impacts identified. (For example, are the impacts short-term or periodic and only during construction? Are they nuisance impacts or do they have greater and longer-term import?)
- Whether any impacts would be disproportionately visited on the minority or low-income population as compared to others affected by the project. (The amount of project study corridor occurring in proximity to minority or low-income populations was compared to the overall length of the project. This was done for each project segment as well as for the Proposed Project overall.)

BLM guidance on addressing Environmental Justice (BLM, 2002) states that “Minority populations are identified as either: (1) the minority population of the affected area exceeds 50 percent, or (2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.” An affected population that meets this standard raises a concern as to whether there may be an environmental justice issue. The concern is regarding whether disproportionate adverse impacts occur to the minority population, as compared to the general regional population.

In both San Bernardino and Riverside Counties, the 50 percent minority threshold is tempered by the fact that minorities make up more than 50 percent of the countywide populations. To take this into account, the threshold used in the evaluation of a disproportionate impact on minority populations is whether the minority population percentage in a particular area or tract is greater than the countywide minority population percentage. In San Bernardino County the countywide minority population is 66.8 percent of the total population; in Riverside County it is 60.4 percent. For those tracts exceeding this threshold, more specific analysis is required in order to determine:

- if the minority population percentage difference is meaningful when compared to the countywide population and
- if impacts to the identified population would be disproportionate, as compared to other populations affected by the project.

For purposes of analysis, it was determined that if the minority population in a tract were 10 percent or greater than the countywide minority population, this would be a meaningful difference. Four tracts met

the threshold of having a minority population that is 10 percent or greater than the countywide minority population: Census Tracts 71.08, 71.09, and 72 in San Bernardino County and Census Tract 442 in Riverside County. These tracts are addressed in Section D.8.3.3 (Impacts and Mitigation Measures), under Impact SE-4.

For income, the percentage of the countywide population living at or below the federal poverty level was used as the benchmark for identifying low-income census tracts. For Census tracts with a greater percentage of the population living below the poverty line than occurs countywide, a more detailed review was conducted. See Section D.8.3.3. Thirteen tracts met this threshold: Census Tracts 71.5, 71.7, 71.8, 71.9, 72, and 73.05 in San Bernardino County and Census Tracts 438.07, 438.13, 439, 441.03, 442, 445.21, and 445.22 in Riverside County.

D.8.3.1.3 Applicant Proposed Measures

SCE did not propose any Applicant Proposed Measures relevant to socioeconomics or environmental justice.

D.8.3.2 Impact Criteria

NEPA does not have specific significance criteria. However, NEPA regulations contain guidance regarding significance analysis. Specifically, consideration of “significance” involves an analysis of both context and intensity (Title 40 Code of Federal Regulations 1508.27). Using the following criteria for the purposes of analysis, the project or an alternative would impact socioeconomics if it would:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

These are impacts that, if they were to occur, could themselves result in environmental impacts. The key concerns are (1) induced population growth resulting from development of buildings or infrastructure and (2) whether housing and people would be displaced, requiring construction of replacement housing. These are changes that could in themselves create environmental impacts as a result of implementing the Proposed Project. For example, construction of replacement housing for persons displaced by a project could have its own environmental impacts, which would be an outcome of approving the original project creating the displacement.

A criterion used in all three cases is whether the change would be “substantial.” Substantial is a general term without specific metrics attached to it. For purposes of this analysis, substantial is taken to mean a numerically meaningful change in existing conditions, as judged by a reasonable person.

Expenditures on wages, equipment and materials, and governmental fees and taxes contribute to the local and regional economy and to government fiscal resources, and have a beneficial effect. Finally, this analysis also analyzes environmental justice and considers whether the project would disproportionate affect minority or low-income populations.

D.8.3.3 Impacts and Mitigation Measures

This section provides an overview of impacts by segment, followed by a discussion of individual impacts.

D.8.3.3.1 Impacts by Segment

Segment 1: San Bernardino. In Segment 1, the ROW corridor is 3.5 miles long. Over this distance:

- No housing or persons would be displaced.
- 2.5 miles of the 1-mile-wide study corridor intersect 3 census tracts where the minority population is higher than the percentage minority population countywide. (See Figure D.8-2)
- 2 miles of the 1-mile-wide corridor intersect 2 census tracts where the percentage of residents living below the poverty line is higher than the percentage of the countywide population living below the poverty line. (See Figure D.8-2)

Segment 2: Colton, Grand Terrace, and Loma Linda. In Segment 2, the ROW corridor is 5.2 miles long. Over this distance:

- No housing or persons would be displaced.
- 1.8 miles of the 1-mile-wide study corridor intersect 3 census tracts where the minority population is higher than the percentage minority population countywide. (See Figure D.8-2)
- 1.8 miles of the 1-mile-wide corridor intersects 2 census tracts where the percentage of residents living below the poverty line is higher than the percentage of the countywide population living below the poverty line. (See Figure D.8-2)

Segment 3: San Timoteo Canyon. In Segment 3, the ROW corridor is 10 miles long. Over this distance:

- No housing or persons would be displaced.
- 0.8 miles of the 1-mile-wide corridor includes a census tract where the minority population is higher than the percentage minority population countywide. (See Figure D.8-2)
- None of the 1-mile-wide corridor includes a census tract where the percentage of residents living below the poverty line is higher than the percentage of the countywide population living below the poverty line. (See Figure D.8-2)

Segment 4: Beaumont and Banning. In Segment 4, ROW corridor is 12.2 miles long. Over this distance:

- No housing or persons would be displaced.
- 3.5 miles of the 1-mile-wide corridor includes 2 census tracts where the minority population is higher than the percentage minority population countywide. (See Figure D.8-2)
- 0.5 miles of the 1-mile-wide corridor includes 1 census tract where the percentage of residents living below the poverty line is higher than the percentage of the countywide population living below the poverty line. (See Figure D.8-2)

Segment 5: Morongo Tribal Lands and Surrounding Areas. In Segment 5, the ROW corridor is 9.5 miles long. Over this distance:

- No housing or persons would be displaced.
- 1.3 miles of the 1-mile-wide corridor includes 1 census tract where the minority population is higher than the percentage minority population countywide. (See Figure D.8-2)
- 9.5 miles of the 1-mile-wide corridor includes 2 census tracts where the percentage of residents living below the poverty line is higher than the percentage of the countywide population living below the poverty line. (See Figure D.8-2)

Segment 6: Whitewater and Devers. In Segment 6, the ROW corridor is 8.1 miles long. Over this distance:

- No housing or persons would be displaced.
- None of the 1-mile-wide corridor includes census tracts where the minority population is higher than the percentage minority population countywide. (See Figure D.8-2)
- 5.1 miles of the 1-mile-wide corridor includes 2 census tracts where the percentage of residents living below the poverty line is higher than the percentage of the countywide population living below the poverty line. (See Figure D.8-2)

Impact SE-1: Construction would result in a substantial increase in population growth.

A project would be considered growth-inducing if it fostered growth in population above what is assumed in local and regional land use plans or in projections made by regional planning authorities. Growth impacts also could occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those identified by local or regional plans and policies.

The Proposed Project would construct new transmission line infrastructure between the existing substations in San Bernardino and Riverside Counties, California, replacing existing lines, and install new or upgraded equipment at existing substations. It does not include the construction of any housing or commercial buildings. There would be no change in staffing levels to maintain the upgraded transmission lines or upgraded substations. Therefore, no direct population growth would occur as a result of the Proposed Project being implemented.

The primary purposes of the Proposed Project are to accommodate delivery of renewable power into the region, prevent overloading of existing transmission facilities, and comply with reliability criteria for transmission planning. The Proposed Project would be constructed over approximately four years. During this period, work activity would occur at different locations at different times along the project corridor. SCE estimates that on any given day typical construction personnel distribution would be approximately 300 workers on transmission and subtransmission lines, 15-20 workers performing substation modifications, and 20 workers on distribution lines. The estimated deployment and number of crew members would vary depending on factors such as material and resource availability, construction scheduling, and local jurisdiction requirements.

Many crafts and skills required by the project could be filled by the existing regional work force. As shown by the data in Table D.8-1, the local labor force in the communities on and near the alignment includes over 16,000 people employed in construction trades. More broadly, San Bernardino and Riverside Counties have a combined construction-trades workforce of over 130,000. It is common for workers in the construction trades to commute to job sites throughout the region, which means that some in the construction trades in parts of Los Angeles and Orange Counties potentially are available. Given the size of the existing construction trades workforce in the project vicinity and in the broader region, it is expected that many of the jobs created during construction of the project could be filled locally. This would mean that there would be no substantial increase in population growth as a result of an in-migration of people to work on the project.

Some specialty craftspeople – those with specific skills and knowledge required for certain aspects of transmission line and substation construction – likely would temporarily relocate to the region from elsewhere in the state or country. Specialty workers often move from project to project, relocating temporarily for the duration of the project or their portion of the project, after which they return to their home locations. This relocation might create short-term growth, but it would abate when the workers departed. Even if a substantial number of workers on the project were to temporarily relocate to the region, their numbers

would be small compared to existing local and regional population numbers. In both San Bernardino (population 2.75 million) and Riverside County (population 2.59 million), substantial centers of population are in the western parts of the counties, within commuting distance of the entire project. Even if they brought their families, the temporary relocation of workers to these areas would be insubstantial compared to the existing regional population.

Therefore, construction and operation of the Proposed Project would not result in a substantial increase in population. No mitigation would be required.

Impact SE-2: Construction would displace a substantial amount of existing housing.

While some linear projects such as new highways may displace housing units, high-voltage transmission lines typically do not displace substantial numbers of housing units. To the degree they have flexibility in siting, transmission lines are routed around buildings. Nearly the entire Proposed Project would be in an existing ROW, designated for use by existing transmission lines and such compatible uses as parks or parking lots. The one section of new ROW, on Morongo Tribal land, would be in an area where there is no housing. The Proposed Project would displace no housing and no need for new replacement housing would result from project implementation. No mitigation would be required.

Impact SE-3: Construction would displace substantial numbers of people.

Construction could displace people directly (by removing residential structures) or indirectly (as a result of in-migrant project workers displacing existing residents). With regard to displacing residences, the Proposed Project would be implemented on land unoccupied by buildings and no housing or buildings would be removed. Even omitting the resort-oriented communities of Desert Hot Springs and Palm Springs, there are over 13,000 vacant housing units in the communities on and near the project alignment, as shown in Table D.8-2. Overall, the rental vacancy rate in San Bernardino County is 6.9 percent and in Riverside County is 7.6 percent, not including vacant homes for sale. In addition, other accommodations, such as long-stay hotels or trailer parks, are available to accommodate housing needs for workers that might temporarily relocate to the area.

The Proposed Project itself would not displace any housing and, therefore, would not displace any people. There is sufficient vacant rental housing to absorb any temporarily relocating workers and their families without displacing others. Therefore, neither the project nor its workforce would displace people. No mitigation would be required.

Impact SE-4: The project would disproportionately affect minority or low-income populations.

The effect of a project on minority or low-income populations is evaluated under NEPA. An analysis of impacts by discipline for the Proposed Project and alternatives is presented in the other parts of Section D, Environmental Analysis. Where needed, mitigation measures are identified that would reduce specific impacts associated with construction and operation of the Proposed Project. Implementation of such measures benefits all populations along the project corridor.

Impacts affecting human populations during construction would be associated primarily with activities of workers and equipment at specific construction sites, and worker generated traffic and trucks delivering materials, equipment, and parts. Primary impacts would be to air quality (dust and emissions) and noise (from traffic and equipment). After construction, the presence of the upgraded transmission lines would have a visual impact. In some locations the transmission structures and lines would be taller than the structures and lines being replaced, and many of the new transmission structures would be in different locations in the ROW from where structures are located presently.

Census tracts through which the project would pass are shown on Figure D.8-1.

In San Bernardino County, a total of 14 census tracts intersect some portion of the study corridor. Collectively, these tracts have a 61.8 percent minority population compared to 66.8 percent countywide. For these same tracts, 14.7 percent of the population lives below the poverty level compared to 17.6 percent countywide.

In Riverside County, 18 census tracts intersect some portion of the study corridor. Collectively, these tracts have a 50.4 percent minority population compared to 60.4 percent countywide. For these same tracts, 13.5 percent of the population lives below the poverty level compared to 15.6 percent countywide. Taken as a whole, the population in these tracts does not meet Environmental Justice thresholds. However, individual tracts do meet these thresholds and are examined in more detail below.

Of the 32 census tracts located wholly or partially within the study corridor, 9 tracts have a greater percentage of minority residents than the percentage of minority population countywide. The minority population in 4 of these tracts is more than 10 percent above the countywide average minority percentage. Of the 32 tracts reviewed, 14 tracts have a higher percentage of residents living at or below the federal poverty level as compared to the percentage of residents at or below the poverty level countywide.

In Section D.8.1.2.3 (Environmental Justice Setting), Tables D.8-3 and D.8-5 list those tracts exceeding the respective countywide percentages for minority population and poverty population. Figure D.8-2 shows the locations of these tracts.

In San Bernardino County, within the 1-mile-wide study corridor the minority population percentage in 7 census tracts exceeds that of the countywide minority population percentage; 3 of these tracts are greater than 10 percent above the countywide minority population percentage. The poverty-level population percentage in 6 census tracts exceeds the corresponding countywide poverty level percentage.

In Riverside County, within the study corridor the minority population percentage in 2 census tracts exceeds that of the countywide total minority population percentage; 1 of these tracts is greater than 10 percent above the countywide minority population percentage. The poverty-level population percentage in 8 census tracts exceeds the corresponding countywide poverty level percentage.

The discussion below addresses only census tracts where the minority population and/or the poverty level percentage is greater than occurs countywide.

Segment 1: San Bernardino

As shown in Figure B-1 (in Section B), Segment 1 begins at San Bernardino Substation in the City of Redlands, extends south through a section of Redlands, across Interstate 10 (I-10), to San Bernardino Junction just south and east of the City of Loma Linda. Figure D.8-2 shows that the study corridor in Segment 1 includes portions of 3 tracts having minority populations and/or poverty levels greater than occur countywide in San Bernardino County. These are Census Tract 73.06, through which the ROW passes, and Census Tracts 72 and 73.05, parts of which are within the study corridor.

At its nearest, Census Tract 72 is 0.25 miles from the ROW. Warehousing and commercial/light industrial properties along Mountain View Avenue separate residential areas in this tract from the ROW.

At Redlands Boulevard, the corridor crosses into Census Tract 73.06, which extends south approximately 1 mile to Barton Road. West of this tract is Census Tract 73.05, which is immediately south of tract 72 and approximately 0.25 miles from the ROW at its nearest point. The only portion of Census Tract 73.05 within the 1-mile corridor is west of Mountain View Avenue between Redlands Boulevard and Van Leuven Street in Loma Linda. The nearest residents to the ROW are those in tract 73.06, which has a minority population

of 68.1 percent, 1.3 percent higher than the countywide 66.8 percent minority. This 1.3 percent equates to about 73 persons and is not a significant difference.

Given the large number of warehouses and truck depots between the ROW and Census Tract 72 in the study corridor, it is anticipated that impacts to residents in this tract living in the vicinity of Mountain View Avenue would not be noticeably different from those occurring from typical car and truck traffic in the area. Time of day restrictions on project work and requirements for dust and emissions controls would address construction-period impacts. Distance to the ROW and the presence of intervening buildings and vegetation would lessen the visual impact of the new transmission structures and conductors once installed. The impact on residents in Census Tract 72 would not be disproportionate to impacts to other residents along the project alignment. The same would be true for Census Tract 73.05, which has an existing residential area in Census Tract 73.06 separating it from the ROW.

As noted, Census Tract 73.06 has a slightly higher minority population than occurs countywide. Approximately 1.1 miles of the corridor passes through residential communities within this tract. Another approximately 1.1 miles of the corridor passes through residential areas (in tract 73.02, south of tract 73.06) with a minority population percentage less than occurs countywide. Both tracts are in Loma Linda. About half of the ROW here is shared with a grove of citrus trees and half is developed as a landscaped park with trails. The adjacent and nearby properties would have similar noise and air quality impacts during construction, and similar visual impacts after construction. The impacts would fall proportionately on minority and non-minority populations.

Segment 2: Colton and Loma Linda

As shown in Figure B-1 (in Section B), Segment 2 begins at Vista Substation in Grand Terrace and extends to San Bernardino Junction south of Loma Linda. As shown in Figure D.8-2, Segment 2 passes through four tracts (71.07, 71.08, 71.09, and 71.10) with minority populations greater than occur countywide in San Bernardino County. Three of these (71.7, 71.8, and 71.9) also have a greater percentage of their population living below the poverty limit as compared to the percentage of the countywide population living below the poverty limit.

Census Tract 71.07 includes Vista Substation and approximately 0.5 miles of ROW. Residential areas are on Grand Terrace Road immediately across from the substation and to the north along Milano Way and the north side of RV Center Drive. From Vista Substation to where the alignment crosses I-215, the ROW is co-located with a large RV sales and storage facility.

East of I-215, the ROW enters Census Tract 71.09, where it passes between a commercial area on S. Mt. Vernon Avenue and homes on Vista Grande Way. Burton Road is the eastern limit of the tract.

As shown in Figure D.8-1, two tracts in Colton, Census Tract 71.08 and 71.10, are partially in the study corridor. The portion of tract 71.08 in the corridor includes a section of the Santa Ana River and floodplain as well as residential and commercial areas north of E. Washington Street. A small sliver of tract 71.10 along Clear Creek Lane falls within the corridor. The residential areas in these two tracts are more than 0.25 miles from the ROW and separated by existing residential and commercial land uses. As described in Segment 1 for tracts not adjacent to or on the ROW, intervening land uses would tend to buffer noise and air quality impacts during both construction and visual impacts after. For those tracts through which the ROW passes (tracts 71.07 and 71.09), work hour restrictions and dust and emission control requirements would address construction-period impacts. Distance to the ROW and the presence of intervening buildings and vegetation would lessen the visual impact of the transmission structures and conductors. Approximately 1.2 miles of the ROW are in high minority and high poverty census tracts. The remaining approximately 3.8 miles of Segment 2 are in tracts with minority and poverty levels below the

countywide levels. For about approximately 1.5 miles through these tracts the ROW is adjacent to residences; for the balance of the route residential areas are at the outer margins of the corridor. Adjacent and nearby properties to the ROW would have similar noise and air quality impacts during construction, and similar visual impacts after construction. These impacts would fall proportionately on minority/non-minority and poverty/non-poverty populations.

Segment 3: San Timoteo Canyon

As shown in Figure B-1 (in Section B), Segment 3 begins at San Bernardino Junction south of Loma Linda and extends southeast to El Casco Substation on San Timoteo Canyon Road near Calimesa. As shown in Figure D.8-2, the study corridor in Segment 3 passes through the northern most edge of 1 tract (424.01) with a minority population greater than occurs countywide in Riverside County. However, the portion of the census tract falling within the corridor is mountainous terrain, while the population in the tract occurs near Highway 60 (Moreno Valley Freeway), well south of the study corridor. Given the location of the population within this tract compared to the project corridor, there would be no disproportionate impact on a minority population. There are no tracts in Segment 3 that exceed the countywide poverty level.

Segment 4: Beaumont and Banning

As shown in Figure B-1 (in Section B), Segment 4 begins near El Casco Substation on San Timoteo Canyon Road and extends east through Calimesa, Beaumont, and Banning. As shown in Figure D.8-2, the study corridor in Segment 4 passes through 4 tracts (438.07, 439, 438.21, and 441.03) with a larger percentage of their population living below the poverty limit than occurs countywide in Riverside County. The western portion of Census Tract 438.07 is open land, with housing beginning at Beaumont Avenue and extending to Cherry Avenue in Beaumont. Tract 439 is south of the ROW, approximately 700 feet away at its closest point. Tract 438.21 is a developing area between the ROW and I-10. Here the land is open land to the north of the ROW and a subdivision is located to the south. Based on the housing types in the tract, housing near I-10 is more modest in appearance and is assumed to account for a greater portion of families below the poverty line than the tract homes closer to the ROW. In tract 441.03, residences are located at the north end of Mountain Avenue in Banning, with most of the land along the ROW being vacant. Together, the 4 tracts of concern have residences adjacent to the ROW for approximately 1.15 miles. Overall, in Segment 4 approximately 4.9 miles of ROW are adjacent to residential areas in tracts that do not meet the Environmental Justice thresholds and 1.15 miles of ROW are adjacent to residential areas in tracts that do meet these thresholds. Because impacts would be similar along the entire corridor, there is not a disproportionate impact on minority or low-income populations compared to other areas along the corridor.

Segment 5: Morongo Tribal Land and Surrounding Areas

As shown in Figure B-1 (in Section B), Segment 5 begins in Banning and crosses lands under the jurisdictions of Banning, Riverside County, and the Morongo Tribe. As shown in Figure D.8-2 (Census Tracts meeting Environmental Justice Criteria), the segment includes 2 census tracts (442 and 438.13), both of which have a higher percentage of their population living below the poverty limit as compare to the county at large. In addition, tract 442 also has a greater percentage of minority population than occurs countywide. The ROW is at the northern edge of this tract, with residences approximately 0.3 miles of the ROW before it enters an area of extensive ongoing quarrying. East of the main quarry operation, at North Hathaway Street, the corridor enters Morongo Tribal lands and Census Tract 438.13. Approximately 3 miles of the existing ROW south of residences on the reservation would be abandoned. The new section of ROW would be closer to I-10, and further from the residential area. Near Malki Road, the route would rejoin

the existing ROW and continue east past a commercial center and casino on the north side of the I-10. At Rushmore Road, just off tribal land, the segment ends adjacent to a small residential area.

In Segment 5, approximately 0.6 miles of ROW is near low-density residential areas. The balance of the nearly 9-mile segment is through open land with a small section near commercial properties. Because of the low population density in the Segment 5, Census Tract 438.13 is quite large and includes most of the segment, which roughly divides the tract in half. Most of the tribal land north of I-10 is in the tract, and an area of unincorporated Riverside County land south of I-10 nearly equal in size makes up the southern portion of the tract.

On reservation land, the new ROW would be farther from residences as compared to existing conditions. The few residences adjacent to or near the ROW would experience similar noise and air quality impacts during construction, and similar visual impacts after construction, as occur along the entire project corridor. Therefore, the impacts would not fall disproportionately on minority or low income populations.

Segment 6: Whitewater and Devers

As shown in Figure B-1 (in Section B), Segment 6 begins in unincorporated Riverside County at the eastern edge of Morongo Tribal lands and extends to Devers Substation just north of Palm Springs. As shown in Figure D.8-2, the segment includes 2 census tracts (445.21 and 445.22), both of which have a higher percentage of their population living below the poverty limit compare to the county at large. As with Segment 5, Segment 6 is through largely unoccupied land. However, small low-density residential areas are located near the ROW in the vicinity of Rushmore Avenue, Haugen-Lehmann Way, Twentynine Palms Highway, and Diablo Road.

Segment 6 is just over 8 miles long. Low-density rural residential areas are near approximately 2.5 miles of the ROW, with the balance of the route in open landscape, some of which is occupied by wind farms. Residences adjacent to or near the ROW would experience similar noise and air quality impacts during construction, and similar visual impacts after construction, as occur along the entire project corridor. Therefore, the impacts would not fall disproportionately on the low income populations along this segment.

Impact SE-5: Construction of the project could adversely affect property values.

The effect of a project on property values is evaluated as an economic impact under NEPA. The presence of a high-voltage overhead transmission line can raise concerns among property owners about the potential effect the line might have on the value of their property. This may be of particular concern if new lines are being introduced in an area where there have not been lines previously. It also can be a concern when an existing line is upgraded to a higher voltage and the position of the line and of individual structures within the ROW changes existing conditions, resulting in structures being more or less proximate to individual properties. Transmission structure and conductor sizes also would increase to support higher throughput on the lines.

Studies of the impact of power lines on property values have produced mixed findings. A recent publication, *Towers Turbines and Transmission Lines Impact on Property Value* edited by Sandy Bond, Sally Sims, and Peter Dent (Bond, et al., 2013) provides a comprehensive review of decades of studies of high-voltage transmission lines, cell towers, and wind farms in various countries. In particular, Chapter 6 of the book reviews high-voltage overhead transmission line studies in North America (*Chapter 6: A Review of HVOTL Studies in North America*, contributed by David Wyman and Elaine Worzala of Clemson University). The discussion below draws heavily from the book by Bond et al. Page numbers provided in parentheses refer

to this volume. Although concerns may arise with regard to effects on the value of businesses or vacant land, the emphasis here is on residences.

A number of factors are perceived to have the potential to diminish property values. These include concerns over whether there is a potential health and safety risk posed by lines (see the discussion of electric and magnetic fields in Section D.21), the visibility of the line from the property in question, and the potential for increased traffic, noise, and dust to occur during construction and affect the property.

“When considering the impact of general locational factors on the value of any real estate development, there are certain overarching criteria which will influence the level of value impact of specific factors. These will range from the nature of the market at any one point in time, geographic location, physical structures, the prevailing sentiment towards these factors and, to some degree, the methodologies used to evaluate the impact of these factors.” (*Ibid.*, p. 2)

The effect on property values may relate to such factors as:

- Type of physical structures
- Proximity of the structures to the property
- Visibility/audibility
- Prevailing market sentiment
- Media attention
- Current state of the real estate market.

Table D.8-8 lists 15 studies of the relationship of power lines and property values, and includes the authors of the studies, study locations and dates, the number of properties evaluated, conclusions regard effects on price, and the size of the power line.

An early landmark study of property values and high-voltage lines by W. N. Kinnard in 1967 concluded that there was a negligible effect of power lines on neighboring properties. Numerous studies have followed and reached a range of conclusions. In a 2009 review of 16 different studies, J. A. Chalmers and F. A. Voorvart found that “half the studies showed negative property impacts, while the other studies showed no impact on value caused by abutting power lines.” (*Ibid.*, p. 101) Chalmers and Voorvart indicated that where impacts were found they were usually less than 10 percent and normally ranged from 3 to 6 percent. A review of studies by Pitts and Jackson in 2007 concluded that both “market interviews and academic literature show that the impacts of power lines on residential properties are varied and difficult to measure. The impacts from the power lines, as well as other negative externalities, depend on many factors, including market condition, location, and personal preference.” (*Ibid.*, p. 101)

A 2002 Texas study found that property values in one neighborhood *benefited* from power lines by 4.9 to 8 percent. In this case, the power lines were built in a greenbelt view shed and the author cited this as a condition that overwhelmed any disamenity presented by the power lines. Others have pointed out that most construction is prohibited in ROW corridors in the U.S., resulting in adjacent property owners having the benefit and enjoyment of this extra land.

A 2003 Electric Power Research Institute (EPRI) study stated that differences in location and time of data collection, as well as research design, make direct comparisons of results from the various studies very difficult.

Table D.8-8. North American Studies of the Price Impacts of Power Lines

Study	Location	Sample Dates	Sample Size	Percentage Decrease in Price	Power Line Type
Chalmers and Voorvart (2009)	New England	1998-2007	1286	1. No evidence of systematic effects of either proximity or visibility 2. Properties encumbered with an easement are affected	345 kV
Colwell (1990)	Decatur, IL	1968-1978	200	1. 6.6% at 15m (50ft) 2. 2% at 61m (200ft) 3. Price impacts decrease over time	138 kV
Colwell and Foley (1979)	Decatur, IL	1968-1978	200	1. -8.8% at 15m (50ft) 2. -3.6% at 61m (200ft)	138 kV
Cowger et al. (1996)	Oregon/Washington	1990-1991	296	Small negative (-1.05%) to small positive (1.46%), but not statistically significant	115-500 kV
Delaney and Timmons (1992)	47 States & Puerto Rico	1990	219	Mean decline of 10% related to power line proximity	N/A
Des Rosiers (2002)	Greater Montreal	1991-1996	507	1. -10% for direct view 2. -14% where setback is 15m (50ft) 3. -15 to -20% for higher price properties	315 kV
Hamilton and Schwann (1995)	Vancouver	1985-1991	12,907	1. -6.3% for properties adjacent to a HVTL at 100m 2. -1.1% at 200m	60-500 kV
Ignelzi and Priestley (1991)	North of Berkeley, CA	1976-1989	1816	1. -1% effect on sales prices of most properties at 91m (300ft) 2. Adverse effects can range up to -12%	115-230 kV
Jackson (2010)	Rural Wisconsin	N/A	385	1. -1.1% to -2.4% discount for parcels (not statistically significant) 2. Easement area: -16.0% to -35.3%	115-345 kV
Kinnard (1967)	Hartford, CT	1954-1964	791	1. Limited impact of -3% at 61m (200ft) 2. Tends to decrease substantially over time	Varied
Kinnard et al. (1997)	Suburban St Louis, MO	1990-1996	1377	-0.2% to -4.0% at 61m (200ft)	Unknown
Kinnard et al. (1989)	Orange County, NY	1983-1987	376	1. No measurable price impact for adjacent vacant lots 2. -6.20% at 61m	345 kV
Kung and Seagle (1992)	Suburban Memphis, TN	1989-1990	47	53% considered power line an eyesore, none aware of any health risk	N/A
Mitchell and Kinnard (1996)	Orange County, NY	1983-1987	376	No measurable price impact for adjacent vacant lots	345 kV
Wolverton and Bottemiller (2003)	Oregon/Washington	1989-1992	712	1. No price sensitivity for abutting an HVTL right-of-way. 2. No evident difference in appreciation rates	115-500 kV

Source: Bond et al., 2013.

Factors potentially affecting value are reduced with increased distance from the power line. These include the visibility of the line itself and any humming noise coming from the high-voltage lines. Visibility is lessened the farther a property is from the line and disappears or becomes intermittent when vegetation or structures block views. Transmission line hum, or corona noise (see Section D.13, Noise), occurs when high-voltage lines are carrying a load. The noise from corona discharge and similar electrical phenomena associated with high-voltage power transmission is heard near an energized line as a crackling or hissing sound. The noise is generally inaudible 100 feet from the ROW, and is perceptible only in very low ambient noise environments. In addition to visibility and noise, a third property owner concern is with regard to potential health risk associated with exposure to electromagnetic fields (EMF). In 1992, the Swedish National Institute of Occupational Health published two research studies suggesting that EMF exposure increased certain health risks. Despite numerous studies since, there is no consensus in the scientific community that exposure causes health issues. Individual buyers will perceive risk differently and for some a lack of certainty on this topic may diminish their perception of the value of a property located near a transmission line.

Various methodologies have been used in property value studies. Examples include:

- **Paired Sales Analysis.** This methodology involves finding sales of properties within the impact area of a transmission line and comparing these with sales of similar, competitive properties in a control area. Any price differentials are noted, and any pattern of such differences is identified and statistical testing procedures are applied to the results. There are two possible shortcomings of this market-based procedure. First, identifying what constitutes a pair of virtually identical properties often is a matter of subjective judgment on the part of the analyst or appraiser. Different analysts studying the same market frequently produce different pairs. Second, the relative paucity of appropriate pairs can render the entire procedure (and its results) questionable in terms of its representing the market.
- **Survey Research/Opinion.** Survey Research/Opinion method is used to supplement or substitute for analysis of market sales. It relies on responses to hypothetical situations by interviewees who are not necessarily prospective buyers.
- **Market Impact Studies Using Multiple Regression Analysis (MRA) in the Hedonic Pricing Model Format.** MRA in the Hedonic Pricing Model Format involves gathering data on many market sales transactions within the impact area and within one or more similar control areas over a specified period. This occurs before public awareness of a project. The extended time period is used to identify and measure any price/value impact that occurs once awareness of the project occurs. This type of “before and after” analysis supplements the comparison of other market data for both the impact and control areas.

Three possible effects have been claimed, singly or in combination, as potential contributors to reduced market value:

- **Diminished Price.** Diminished price is identified by comparing prices of units that are proximate to power lines with prices of similar and competitive properties more distant from transmission lines.
- **Increased Marketing Time.** Even when proximate properties sell at or near the same prices as more distant properties, claimants argue that properties nearer the transmission line take longer to sell. Such increased marketing time can constitute a “loss” to the seller because of the deferred availability and use of sale proceeds.
- **Decreased Sales Volume.** A more subtle indicator of diminished property value is if some potential buyers decide not to buy in the area of a transmission line. This would reduce the numbers of people looking into purchase of the property. A measurable decrease in sales volume in the vicinity of the line as compared with sales volume in a control area can represent evidence of decreased market value from proximity to the high-voltage transmission lines.

Regardless of the methodology, researchers acknowledge the difficulty of segregating the various variables affecting decisions. They recognize that the purchase of a residential property is a personal decision to which buyers bring their own mix of expectations, preferences, and biases, including how to weigh other factors in reaching a decision to purchase a property and at what price. Studies such as those discussed above indicate that other property-specific factors such as neighborhood amenities, schools, proximity to work, square footage of house, lot size, current market conditions, housing stock availability, et cetera are substantially more likely than the presence of overhead transmission lines to be major determinants of the sales price of property.

In addition, studies have generally concluded that over time, potential adverse effects on property value tend to diminish to a point of being negligible within five years; the studies determined that this decreasing effect is most likely due to increased screening of transmission lines over time, as trees and shrubbery increase in size, as well as diminished public sensitivity to the transmission line proximity. Some studies have suggested that where direct access to the ROW is provided, and trails and landscaping are installed, presence of transmission lines can be perceived as a favorable condition. Presumably this is because of the park-like views and open space access to the ROW for recreation.

In order to assess whether particular environmental and physical changes associated with implementation of the Proposed Project could affect property values, a market study of current and future properties within a specified distance from the transmission line would be required to evaluate property values with and without the Proposed Project. However, the data that would be required to conduct such an analysis for the Proposed Project are not realistically available and any conclusions regarding effects on property values in the case of the West of Devers Upgrade Project would be speculative.

As demonstrated by the studies discussed, factors that have the potential to affect property value are numerous and varied. As a result, it is not possible to identify exactly how or if the Proposed Project would potentially affect private property values. In the case of the West of Devers Upgrade, this situation is further complicated by the fact that transmission lines already exist in the ROW and that many residences adjacent to the ROW were built with the existing lines already in place.

An additional factor to consider is prior experience with transmission lines. In contrast to a new transmission line being built in a new ROW, the West of Devers Upgrade Project would be within an existing ROW occupied by existing lines. The project ROW and the existing transmission lines in the ROW have been part of the local landscape for some time, in both developed and undeveloped areas. Subsequent to the original development of the transmission corridor, additional residential and commercial development has occurred along the ROW.

The upgrades proposed would not introduce transmission lines into an area where previously there have been none. However, the project would change the size of the lines and the locations and heights of transmission structures. The Proposed Project would remove numerous existing transmission structures and lines, replacing them with new structures and lines of more robust construction. Some new structures would be larger and taller than those removed, but there would be fewer structures than now exist in the ROW and the ROW would have a more consistent look because the Proposed Project would require installation of two similar structures. The locations of individual structures within the ROW would change as compared to current conditions. This would result in some residences having transmission structures and conductors nearer to them than is the case with the structures and conductors that would be removed. In other cases, the new structures and conductors would be farther from residences than the existing ones.

Given that the Proposed Project would occur in an already developed transmission corridor and that various structures and lines would be removed and new transmission structures and lines would be installed, it is

likely that there would be no perceptible change in property values overall, even if it could be demonstrated that the value of some individual properties would be affected.

Simply stated, there are no definitive answers about whether and to what degree the presence of a transmission line may affect property value; some studies claim to identify an adverse effect on value under certain circumstances, while others find no discernable effect or even a positive effect.

Impact SE-6: Construction of the project could increase wages and public revenue.

The effect of a project on wages and tax revenues is evaluated as an economic impact under NEPA. It is estimated that construction of the Proposed Project would directly generate nearly \$790 million in wages and \$244 million in non-labor purchases. This nearly \$1 billion in expenditures would have a multiplier effect in the economy, creating additional jobs elsewhere in the economy. While some expenditures would occur for materials acquired in distant markets, substantial expenditures would be local. SCE estimates that for every \$1 million spent, four jobs would be created in the California economy during construction. Although the completion of construction would see the end of this revenue stream into the economy, financial benefits from the presence of the new assets would continue. Public revenues in the form of property taxes, sales (or use) taxes, and franchise fees are paid to the various cities and counties within the project area. It is estimated that with the West of Devers Upgrade in place, property taxes on the assets would increase from approximately \$172,000 (in 2013) to approximately \$13 million. San Bernardino County's annual property tax revenues would increase by \$3.6 million and Riverside County's annual property tax revenues would increase by \$9.4 million.

During construction, expenditures on labor and materials would add to the regional economy, providing both personal wages and additional public revenue through taxes on wages and material purchases. After construction is complete, local governments would continue to benefit from annual taxes and fees paid on the new assets put in place by the Proposed Project. Because the project's assets would require little or no public services, the revenues realized from taxes and fees related to the Proposed Project would be an ongoing positive benefit to the region.

Mitigation Measures

None of the impacts associated with socioeconomics or environmental justice require mitigation.

D.8.3.4 Impacts of Connected Actions

Impact SE-1: Construction would result in a substantial increase in population growth.

Building the solar projects defined as connected actions would require a large workforce at each site during the construction phase. Subsequent operation and maintenance of the facilities would require a much smaller workforce. It is expected that most of the construction workforce would be drawn from areas within a 2-hour commute of the individual projects. The operational workforce will be drawn from an area within a 1-hour commute. Based on the labor pool identified in Table D.8-1 (in Section D.8.1.2.1), a more than adequate workforce would be available to work on simultaneously constructed projects. In addition to the labor pool identified in Table D.8-1, projects in the Desert Center and Blythe areas would draw from Imperial County and nearby counties in Arizona.

Desert Center Area. There are 4 connected projects anticipated to be developed in the Desert Center area. Simultaneous construction of the 4 projects would require an average daily workforce of 600 and a peak workforce of 1,200. There is a very small population in Desert Center; the closest substantial population centers are nearly 50 miles away in each direction — in the Coachella Valley to the west and in Blythe to the east. Few if any accommodations exist in Desert Center. It is anticipated that workers would

commute from western Riverside County and Blythe to jobs in the Desert Center area. Some workers also would commute from San Bernardino and Imperial Counties. Because construction jobs are relatively short-term and because there is no local accommodation for workers in the area, they would commute from their residences. Table D.8-1 (Population and employment) identifies the total employment in construction trades for San Bernardino and Riverside Counties, as well as for individual cities in the vicinity of the West of Devers transmission corridor. This workforce, as well as workers in Blythe and Imperial County, would be within the 2-hour (approximately 130 mile) commuting radius of Desert Center and would be adequate for meeting the needs of the projects and the projects would not result in a substantial increase in population locally or in the broader region.

Blythe Area. The 3 projects in the Blythe area would be solar PV projects covering a combined 4,200 acres. If constructed at the same time, the combined projects could require a daily average of 350 workers, with a daily peak of 875. The nearest population center is Blythe, which had an estimated 5,680 people employed in 2013. Of these, just over 200 were in construction. The number of unemployed construction workers is unknown. The Blythe Mesa EIR/EA anticipated that most workers would be drawn from the Blythe/Palo Verde Valley region and the Desert Center region, with a smaller portion drawn from the Imperial Valley or eastern Riverside County region. Based on a 2-hour commute, cities in the Coachella Valley as well as the City of El Centro would be within commute distance to the projects in the Blythe area. These more distant cities have substantially larger numbers of construction workers. Because construction jobs are relatively short-term, it is unlikely that many would relocate to Blythe. The workforce within the 2-hour commuting radius would be adequate to the needs of the projects here and there would not be a substantial increase in population locally or in the broader region. Blythe is approximately 50 miles east of Desert Center, so would likely draw workers from Imperial County and nearby areas of Arizona, as well as from the labor pool in San Bernardino and Riverside Counties.

Impact SE-2: Construction would displace a substantial amount of existing housing

All of the connected actions in the Desert Center areas would likely be on vacant land. One large solar project near Blythe has 3 residences on the property that are associated with existing agricultural use on part of the site, and these residences would be purchased by the solar developer. The other projects are expected to use vacant land. Consequently, construction of the projects would not displace a substantial amount of existing housing.

Impact SE-3: Construction would displace substantial numbers of people

The connected solar projects would be primarily located on vacant land; therefore, direct displacement of a substantial number people thorough the construction of the connected action projects would not occur. Indirect displacement could occur if a large number of workers migrated to the area and displaced current residents (for example, by out-bidding local residents for rental properties). However, based on an anticipated 2-hour commute threshold, there is a sufficient workforce extant in the region to undertake the various projects. It is anticipated that few workers would relocate to be closer to project sites. If workers from more distant locations were to move to the area, vacancy rates in the cities and communities within this 2-hour distance are sufficient to absorb any workers who may want to move closer to the projects.

Impact SE-4: The project would disproportionately affect minority or low-income populations

The effect of a project on minority or low-income populations is a factor considered under NEPA.

Desert Center Area. The census tract that includes Desert Center area covers a large, sparsely populated area. In 2010, the total population of the tract was less than 2,000 and was 55.4 percent minority. This

is below the countywide 60.5 percent minority population. The Desert Harvest Solar Project FEIS identified that 4.3 percent of the population in the area of the project was below the poverty level. Given the low population density and the composition of the population, the connected actions would not disproportionately affect minority or low-income populations. This is true as well when considering the Proposed Project in conjunction with the connected actions.

Blythe Area. In 2010 the population of Blythe was 20,817. Ripley, located approximately 6 miles southwest of Blythe, had a population of 692. Small areas of residential development occur near I-10 west of Blythe. There are few residences outside of these communities and the surrounding agricultural areas. Three of the connected actions, covering 4,200 acres, are expected to locate in the desert west of Blythe and interconnect with the Colorado River Substation. The fourth project, the Blythe Mesa Solar Project, would be located on vacant and agricultural land at the western edge of Blythe and would interconnect to the same substation. These projects would be 6 or more miles from the center of Blythe.

Data in the Blythe Mesa Solar Project EIR/EA show the percentage minority population in Blythe (41 percent) is less than the percentage minority population countywide (60.4 percent). Some tracts in the Blythe area have a higher percentage of persons living below the poverty level than is the case countywide. However, the data for the desert tracts cover large areas and the population is not in locations expected to have projects nearby or within a distance that would create significant impacts on residents. When viewed in the context of the Proposed Project, the connect actions also would not disproportionately affect minorities or those living below the poverty line as compared to the general population in the project area.

Impact SE-5: Construction of the project could adversely affect property values

The effect of a project on property values is a factor that is considered under NEPA, but not under CEQA.

A review of the effects of transmission projects on property values is provided in Section 8.3.3.1. As discussed in the Desert Harvest EIS, numerous studies of locally undesirable land uses conclude that the potential for environmental concerns associated with large-scale energy projects to have an effect on property value is usually smaller than anticipated. As well, it is essentially impossible to quantify due to the individuality of properties and their respective neighborhoods, as well as differences in the personal preferences of individual buyers and the weight of other factors that contribute to a person's decision to purchase a property. Some aspects of project construction and/or operation and maintenance could potentially affect private property values. However, as cited in the Desert Harvest EIS, "the effects of industrial facilities on property value are generally smaller in comparison to other relevant factors and generally diminish within five years to be negligible. (BLM, 2012: page 4.15-5)

Impact SE-6: Construction of the project could increase wages and public revenue

The effect of a project on wages and public revenue is a factor that is considered under NEPA. During the 2 to 4 years over which individual connected action projects would be constructed, a substantial number of workers would receive wages. Jobs would also be created in the industries providing materials, goods, and services to the projects and to workers. Sales tax revenues would increase from the sale of taxable goods and services. This would be true in all 3 of the areas where connected actions would be built as well as other locations where connected economic activity would occur from project or worker spending. Property taxes would not substantially increase because certain property tax exclusions or reduction apply to new systems constructed prior to January 1, 2017.

D.8.4 Environmental Impacts of Project Alternatives

Three alternatives are considered in this section; all of these alternatives would be located within the existing WOD ROW. The No Action Alternative is evaluated in Section D.8.5. Alternatives are described in detail in Appendix 5 (Alternatives Screening Report) and are summarized in Section C.

The socioeconomic and environmental justice environmental setting within the ROW is described in Section D.8.1.2 above; the description of the environmental setting would apply equally to the alternatives.

D.8.4.1 Tower Relocation Alternative

The Tower Relocation Alternative would locate certain transmission structures in Segments 4, 5, and 6 farther from existing homes than would be the case under the Proposed Project.

Six impacts related to socioeconomic and environmental justice are defined for the Proposed Project. These impacts also would apply to the Tower Relocation Alternative, which overall would be the same as the Proposed Project except for the relocated of certain transmission towers that are described above and in Appendix 5. None of the impacts associated with socioeconomic or environmental justice require mitigation.

Impact SE-1: Construction would result in a substantial increase in population growth

A project would be considered growth-inducing if it fostered growth in population above what is assumed in local and regional land use plans or in projections made by regional planning authorities. Growth impacts also could occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those identified by local or regional plans and policies.

The Tower Relocation Alternative would not result in a greater number of workers than the number required for the Proposed Project, nor would it require additional specialty tradespersons who would move to the region, adding to the local population. The same workers constructing the Proposed Project's towers would construct the relocated towers. The relocation of selected towers from their positions under the Proposed Project to locations approximately 50 feet farther from the southern edge of the ROW would not affect population growth. No mitigation would be required.

Impact SE-2: Construction would displace a substantial amount of existing housing

While some linear projects such as new highways may displace housing units, high-voltage transmission lines typically do not displace substantial numbers of housing units. To the degree they have flexibility in siting, transmission lines are routed around buildings. Nearly the entire project alignment would be in an existing ROW, designated for use by existing transmission.

Relocation of selected towers farther from some residences to nearby locations within the ROW would not displace any housing. As with the Proposed Project, because there would be no displacement of housing there would be no need for new replacement housing. No mitigation would be required.

Impact SE-3: Construction would displace substantial numbers of people

Construction could displace people directly (by removing residential structures) or indirectly (as a result of in-migrant project workers displacing existing residents). With regard to displacing residences, the Project would be implemented on land unoccupied by buildings and no housing or buildings would be removed. Overall, the rental vacancy rate in San Bernardino County is 6.9 percent and in Riverside County is 7.6 percent, not including vacant homes for sale. In addition, other accommodations, such as long-stay

hotels or trailer parks, are available to accommodate housing needs for workers that might temporarily relocate to the area.

The Tower Relocation Alternative would not displace any housing and, therefore, would not displace any people. The workforce required to construct the alternative would be the same as required for the Proposed Project. There is sufficient vacant rental and temporary housing to accommodate any temporarily relocating workers and their families without displacing others. Therefore, neither the alternative itself nor the project workforce would displace substantial numbers of people. No mitigation would be required.

Impact SE-4: The project would disproportionately affect minority or low-income populations

The effect of a project on minority or low-income populations is evaluated under NEPA. This alternative affects only portions of Segments 4, 5, and 6 by shifting the location of certain proposed towers within the existing ROW.

Environmental justice criteria identify census tracts of concern with regard to their receiving disproportionate impacts. Tracts of concern are those having a higher percentage of minority population or a higher percentage of persons living in poverty than the county as a whole.

In Segment 4, the residential areas visible near tower relocation sites on Figures Ap.5-3a through Ap.5-3d are outside of census tracts meeting environmental justice criteria. The residences shown on Figures Ap.5-3e through Ap.5-3g are in census tracts with a higher level of poverty than the countywide level. Moving selected towers farther from residences under the Tower Relocation Alternative would not change conditions such as to create a disproportionate effect on minority or low-income populations. For the Proposed Project, it was determined that there would not be a disproportionate impact on residences in these tracts as compared to all tracts in Segment 4 and for the project as a whole. The same is true with this alternative.

In Segment 5, a pair of towers would be shifted approximately 50 feet north of their proposed location, placing them farther from a single family residence at the end of North Murray Street in Banning. This is shown in Figure Ap.5-3i. Moving these towers farther from a residence would not change conditions such as to create a disproportionate effect on minority or low-income populations.

In Segment 6, the ROW passes through the rural community of Whitewater. See Figure Ap.5-3h in Appendix 5. Four towers would be relocated to be farther from residences. This portion of Segment 6 is in census tract 446.21. The percentage of persons in this tract living below the poverty level is greater than occurs countywide. Some residences would experience somewhat reduced impacts as a result of the relocations, but this would not change the proportionality of impacts under the environmental justice criteria. For the Proposed Project, it was determined that there would not be a disproportionate impact on residences in this tract as compared to the project as a whole.

Impact SE-5: Construction of the project could adversely affect property values

The effect of a project on property values is evaluated as an economic impact under NEPA. The presence of a high-voltage overhead transmission line can raise concerns among property owners about the potential effect the line might have on the value of their property. This may be of particular concern if new lines are being introduced in an area where there have not been lines previously. It also can be a concern when an existing line is upgraded to a higher voltage and the position of the line and of individual structures within the ROW changes existing conditions, resulting in structures being more or less close to

individual properties. Transmission structures and conductor sizes also would increase in order to support higher throughput on the lines.

As discussed for Impact SE-5 in Section D.8.3.3, the proximity of transmission lines raises concerns among property owners regarding potential adverse effects on value. As shown in the studies discussed in Section D.8.3.3, factors that have the potential to affect property value are numerous and varied. As a result, it is not possible to identify exactly how or if relocating selected towers 50 feet from their proposed location would affect private property values as compared to the Proposed Project. In the case of the West of Devers Upgrade, this situation is further complicated by the fact that transmission lines already exist in the ROW and that many residences adjacent to the ROW were built with the existing lines already in place. While moving towers this distance from some residences may have a nominal effect on value, this is impossible to assess or measure. Given the nominal distance the towers would move, the alternative is assumed to have no discernible impact on property values as compared to the Proposed Project.

Impact SE-6: Construction of the project could increase wages and public revenue

It is estimated that construction of the Proposed Project would directly generate nearly \$790 million in wages and \$244 million in non-labor purchases. Although the completion of construction would see the end of this revenue stream into the economy, financial benefits from the presence of the new assets would continue. Public revenues in the form of property taxes, sales (or use) taxes, and franchise fees are paid to the various cities and counties within the project area.

During construction, expenditures on labor and materials would add to the regional economy, providing both personal wages and additional public revenue through taxes on wages and material purchases. After construction is complete, local governments would continue to benefit from annual taxes and fees paid on the new assets put in place by the Proposed Project. Because the project's assets would require little or no public services, the revenues realized from taxes and fees related to the Proposed Project would be an ongoing positive benefit to the region.

The relocation of selected towers would not affect wages or public revenues. Wages and public revenue would be essentially the same under both the Tower Relocation Alternative and the Proposed Project.

D.8.4.2 Iowa Street 66 kV Underground Alternative

The Iowa Street 66 kV Underground Alternative would place a 1,600-foot segment of subtransmission line underground, rather than overhead.

Six impacts were identified under the Proposed Project for socioeconomics and environmental justice. These impacts also would apply to the Iowa Street 66 kV Underground Alternative, which overall would be the same as the Proposed Project, with the exception of the underground portion of the subtransmission line that is described above and in Appendix 5. None of the impacts associated with socioeconomics or environmental justice require mitigation.

Impact SE-1: Construction would result in a substantial increase in population growth

A project would be considered growth-inducing if it fostered growth in population above what is assumed in local and regional land use plans or in projections made by regional planning authorities. Growth impacts also could occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those identified by local or regional plans and policies.

Undergrounding a segment of the 66 kV transmission line in Iowa Street would have no effect on population growth. This is a construction variation and would not increase the project workforce or the level of migration of workers.

Impact SE-2: Construction would displace a substantial amount of existing housing

While some linear projects such as new highways may displace housing units, high-voltage transmission lines typically do not displace substantial numbers of housing units. To the degree they have flexibility in siting, transmission lines are routed around buildings. Nearly the entire project alignment would be in an existing ROW, designated for use by existing transmission.

The undergrounding of the line at this location on Iowa Street would not displace any housing. Most of the alternative would be located within the street ROW. From time to time access to traffic lanes or to properties may be temporarily restricted to accommodate construction, but no residences would be removed.

Impact SE-3: Construction would displace substantial numbers of people

Construction could displace people directly (by removing residential structures) or indirectly (as a result of in-migrant project workers displacing existing residents). With regard to displacing residences, the Iowa Street 66 kV Underground Alternative would be implemented in the road ROW and not on land unoccupied by buildings.

The construction of an underground segment would not displace people. There may be short-term noise and traffic disruption as a result of construction, but it would not be sufficient to displace residents.

Impact SE-4: The project would disproportionately affect minority or low-income populations

The effect of a project on minority or low-income populations is evaluated under NEPA. The underground segment along Iowa Street under this alternative is not located in a census tract that meets the environmental justice criteria for minority or poverty-level populations of concern. There would be no disproportionate effect on minority or low-income populations as a result of undergrounding this segment of the subtransmission line.

Impact SE-5: Construction of the project could adversely affect property values

The effect of a project on property values is evaluated as an economic impact under NEPA.

As discussed for Impact SE-5 in Section D.8.3.3, the proximity of transmission lines raises concerns among property owners regarding potential adverse effects on value. As shown in the studies discussed in Section D.8.3.3, factors that have the potential to affect property value are numerous and varied. As a result, it is not possible to identify exactly how locating a segment of transmission line underground would affect private property values as compared to the Proposed Project, which would have them above ground at this location. Placing lines underground near some residences may have a nominal positive effect on value because it would be out of sight, but this is impossible to accurately assess or measure. While this alternative would remove a visual impact (visible poles and line), the effect this would have on property values is unknown. Therefore, the underground alternative is assumed to have no discernible impact on property values as compared to the Proposed Project.

Impact SE-6: Construction of the project could increase wages and public revenue

It is estimated that construction of the WOD Upgrade Project would directly generate nearly \$790 million in wages and \$244 million in non-labor purchases. During construction, expenditures on labor and materials would add to the regional economy, providing both personal wages and additional public revenue through taxes on wages and material purchases. After construction is complete, local governments would continue to benefit from annual taxes and fees paid on the new assets put in place by the Proposed Project.

The location of a segment of the 66 kV line underground would not affect wages or revenues to any discernible degree. While this segment would require different construction techniques, wages and public revenue would be essentially the same under both the alternative and the Proposed Project.

D.8.4.3 Phased Build Alternative

The Phased Build Alternative would retain existing double-circuit 220 kV transmission structures to the extent feasible, remove single-circuit structures, add new double-circuit 220 kV structures, and string all structures with higher-capacity conductors.

Six impacts related to socioeconomics and environmental justice are identified for the Proposed Project. These impacts also would apply to the Phased Build Alternative. None of the impacts associated with socioeconomics or environmental justice require mitigation.

Impact SE-1: Construction would result in a substantial increase in population growth

A project would be considered growth-inducing if it fostered growth in population above what is assumed in local and regional land use plans or in projections made by regional planning authorities. Growth impacts also could occur if the project provides infrastructure or service capacity to accommodate growth levels beyond those identified by local or regional plans and policies. In the case of the Proposed Project and the Phase Build Alternative, population growth could be a result of in-migration of workers. Analysis of the Proposed Project identified that there are sufficient workers in the region such that only a nominal amount of growth due to in-migration might occur and this would be within the anticipate growth already identified by local jurisdictions.

The Phased Build Alternative would require construction of fewer new double-circuit towers than planned under the Proposed Project. This may result in fewer workers because less tower removal and tower construction would occur. In any event, this alternative would not result in an increase the number of workers greater than the number required for the Proposed Project, nor would it require additional specialty tradespersons who would move to the region, adding to the local population. As under the Proposed Project, the Phased Build Alternative would not affect population growth; no mitigation would be required.

Impact SE-2: Construction would displace a substantial amount of existing housing

While some linear projects such as new highways may displace housing units, high-voltage transmission lines typically do not displace substantial numbers of housing units. Nearly the entire project alignment would be in an existing ROW, designated for use by existing transmission. There are no homes or apartments in the ROW.

As with the Proposed Project, there would be no displacement of housing under this alternative. Therefore, there would be no need for new replacement housing. No mitigation would be required.

Impact SE-3: Construction would displace substantial numbers of people

Construction of a project could displace people directly (by removing residential structures) or indirectly (as a result of in-migrant project workers displacing existing residents). With regard to displacing residences, the WOD Upgrade would be implemented on land free of buildings, and no housing or buildings would be removed. While some workers may move into the project vicinity, most will commute from their homes in the greater metropolitan area. The rental vacancy rate in San and Riverside County is sufficient to accommodate any in-migration. In addition, other accommodations, such as long-stay hotels or trailer parks, are available to accommodate housing needs for workers that might temporarily relocate to the area.

The Phased Build Alternative would not displace any housing and, therefore, would not displace any people. The workforce required to construct the alternative would be similar to that required for the Proposed Project. There is sufficient vacant rental housing to absorb any temporarily relocating workers and their families without displacing others. Therefore, neither the alternative itself nor the project workforce would displace people. No mitigation would be required.

Impact SE-4: The project would disproportionately affect minority or low-income populations

The effect of a project on minority or low-income populations is evaluated under NEPA. Environmental justice criteria identify census tracts of concern with regard to their receiving disproportionate impacts. Tracts of concern are those having a higher percentage of minority population or a higher percentage of persons living in poverty than the county as a whole.

The Phased Build Alternative and the Proposed Project would affect the same census tracts and populations. For the Proposed Project, it was determined that there would not be a disproportionate impact on residences in minority or poverty tracts as compared to for the project as a whole. The same would be true for the Phased Build Alternative, since it affects the same tracts.

Impact SE-5: Construction of the project could adversely affect property values

The effect of a project on property values is evaluated as an economic impact under NEPA. The presence of a high-voltage overhead transmission line can raise concerns among property owners about the potential effect the line might have on the value of their property. This may be of particular concern if new lines are being introduced in an area where there have not been lines previously. It also can be a concern when an existing line is upgraded to a higher voltage and the position of the line and of individual structures within the ROW changes existing conditions, resulting in structures being closer to or farther from individual properties.

As discussed for Impact SE-5 in Section D.8.3.3, the proximity of transmission lines raises concerns among property owners regarding potential adverse effects on value. As shown in the studies discussed in Section D.8.3.3, factors that have the potential to affect property value are numerous and varied. As a result, it is not possible to identify exactly how or if retaining existing double-circuit towers in their existing positions as compared to installing new towers would affect private property values as compared to the Proposed Project. In the case of the West of Devers Upgrade, this situation is further complicated by the fact that transmission lines already exist in the ROW and that many residences adjacent to the ROW were built with the existing lines already in place. While retaining certain towers as opposed to constructing new ones at other location may have a nominal effect on value, this may be adverse to some properties and positive for others. Overall, this is impossible to assess or measure. The alternative is assumed to have no discernible impact on property values as compared to the Proposed Project.

Impact SE-6: Construction of the project could increase wages and public revenue

It is estimated that construction of the Proposed Project would directly generate nearly \$790 million in wages and \$244 million in non-labor purchases. This may decrease if towers are retained, but may be offset by costs associated with strengthening and increasing the height of some towers, and by the need for additional shoo-flies. Although the completion of construction would see the end of this revenue stream into the economy, financial benefits from the presence of the new assets would continue. Public revenues in the form of property taxes, sales (or use) taxes, and franchise fees are paid to the various cities and counties within the project area.

During construction, expenditures on labor and materials would add to the regional economy, providing both personal wages and additional public revenue through taxes on wages and material purchases. After construction is complete, local governments would continue to benefit from annual taxes and fees paid on the new assets put in place by the Proposed Project. Because the project's assets would require little or no public services, the revenues realized from taxes and fees related to the Proposed Project would be an ongoing positive benefit to the region.

Retaining the double-circuit towers would be expected to somewhat reduce overall project cost for materials and labor. This may result in fewer wages being paid. Depending on how the project is valued, public revenue from property taxes and other fees may be somewhat lower under the alternative as compared to the Proposed Project.

D.8.5 Environmental Impacts of No Action Alternative

D.8.5.1 No Action Alternative Option 1

The No Action Alternative Option 1 is described in Section C.6.3.1. It would consist of a new 500 kV circuit, primarily following the Devers-Valley transmission corridor and extending 26 miles between Devers Substation. It would also require a new 40-acre substation south of Beaumont, and 4 new 220 kV circuits extending 7 miles from the new Beaumont Substation to El Casco Substation, primarily following the existing El Casco 115 kV ROW. The remainder of the No Project Alternative, from El Casco Substation to the San Bernardino and Vista Substations, would be identical to the Proposed Project. Information on environmental resources and project impacts is derived from the Devers–Palo Verde 500 kV No. 2 Project EIR/EIS (CPUC and BLM, 2006) and the El Casco System Project Draft EIR (CPUC, 2007); which include nearly all of the No Action alignment.

No Action Alternative Transmission Lines and Beaumont Substation. The 500 kV alignment would pass through the community of Cabazon and through southern Banning, low-income areas south of I-10. Starting at the Beaumont Substation site and continuing to El Casco Substation, the area has low population density or includes remote and rural landscapes. There could be environmental justice concerns in Cabazon and Banning. Other socioeconomic effects, such as wages and public revenues, would be similar to those that would occur under the Proposed Project.

D.8.5.2 No Action Alternative Option 2

No Action Alternative Option 2 would require the construction of over 40 miles of new 500 kV transmission line, following the existing Valley-Serrano 500 kV line. The alternative is described in Section C.6.3.2, and illustrated on Figure C-6b. The new 500 kV circuit would be constructed along an existing transmission corridor and would not physically divide an established community. Most of the surrounding land is sparsely populated, with the exception of the western and eastern ends of the corridor. This alternative would not result in a substantial amount of population growth nor would it displace a substantial amount

of people or housing. Due to the mostly unpopulated nature of this corridor, adverse effects are not expected to fall disproportionately on minority or low-income populations. Positive effects on wages and public revenue are expected to be similar to those described in the Proposed Project.

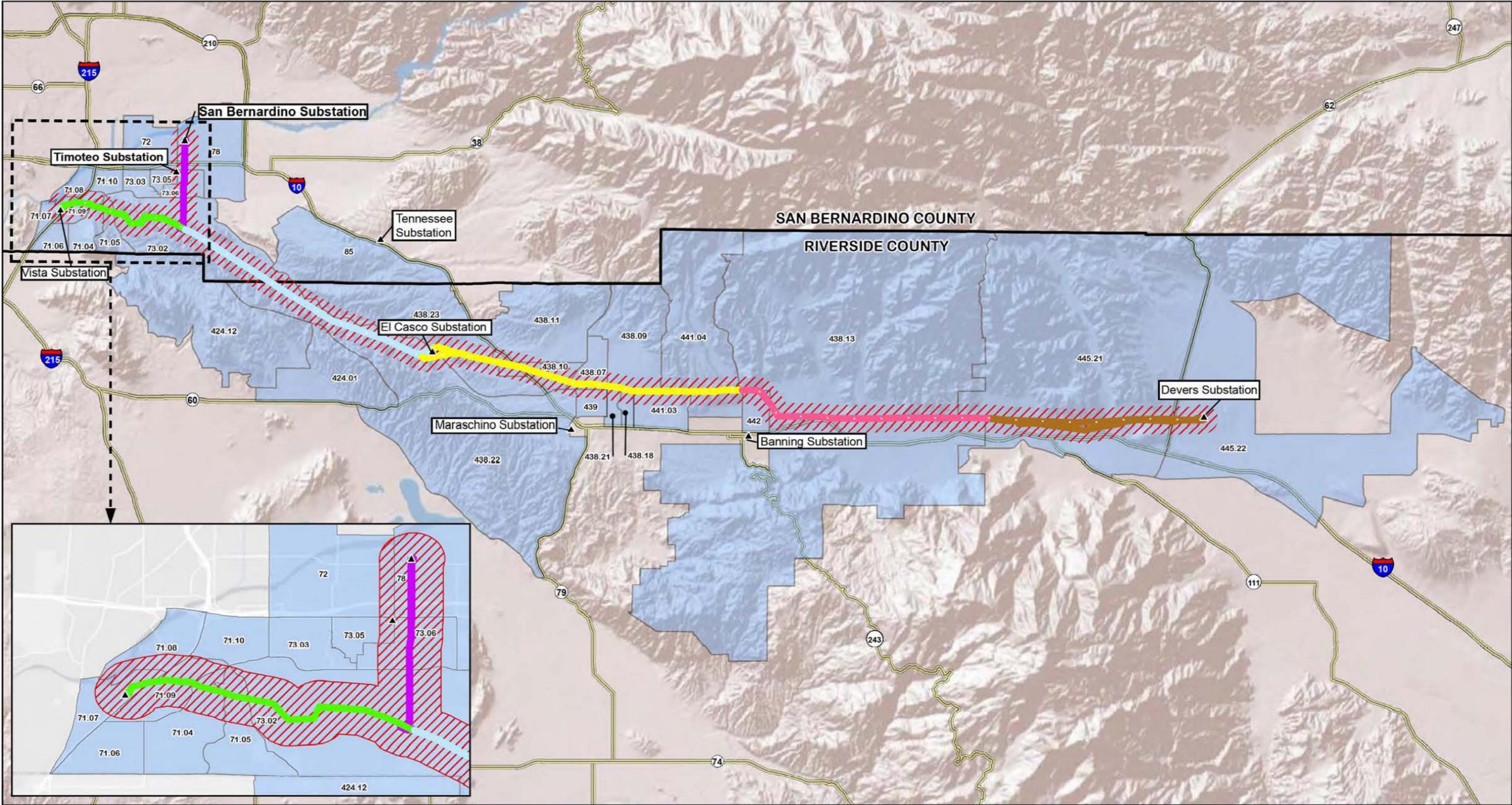
D.8.6 Mitigation Monitoring, Compliance, and Reporting

No mitigation measures are required for Socioeconomic and Environmental Justice impacts.

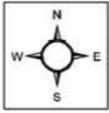
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Source: SCE 2013
U.S. Census Bureau



0 1 2 4 6 Miles

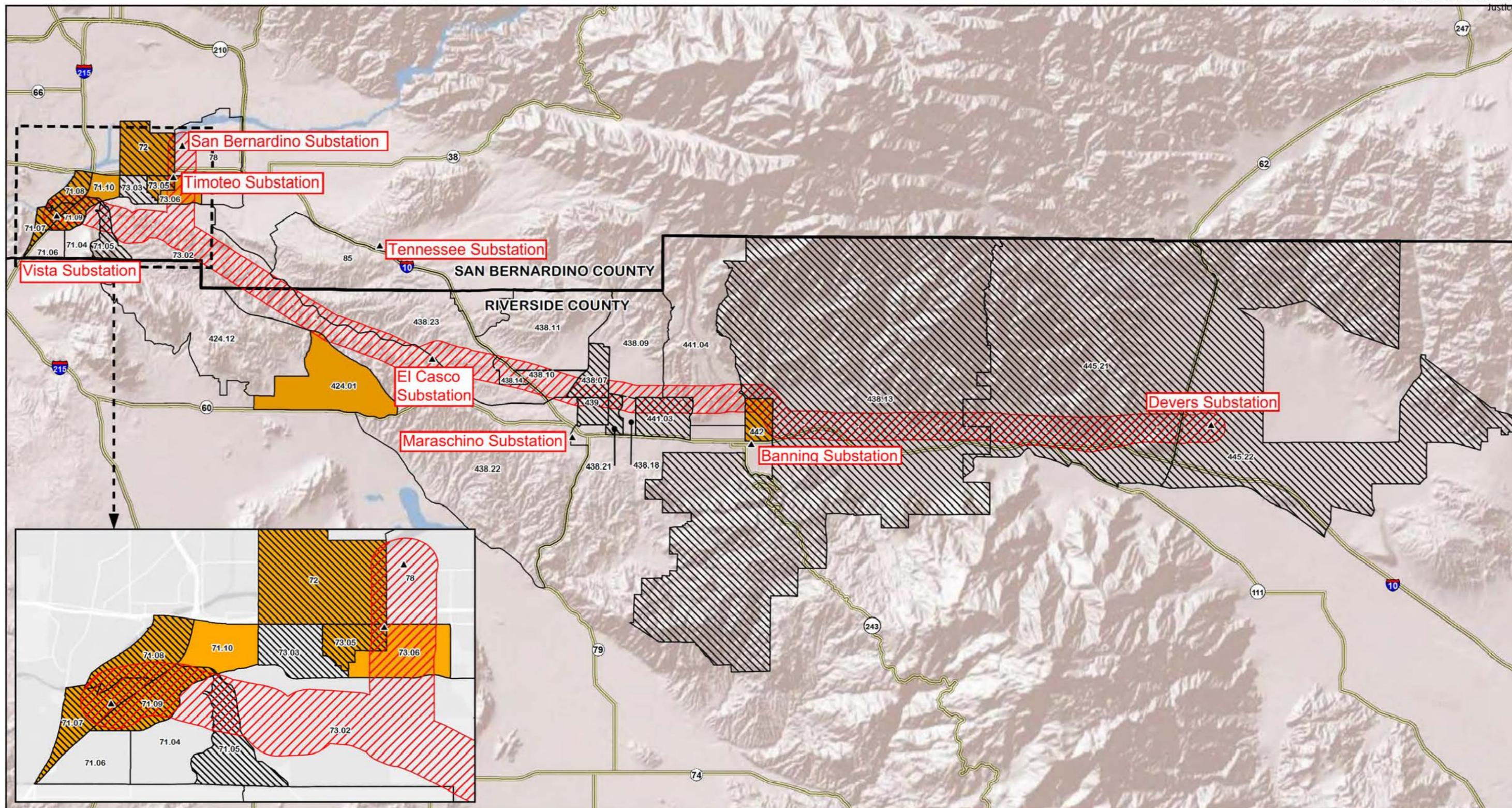
Legend

- ▲ Substation
- Transmission Line
- County Line
- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- ▨ 1-Mile Corridor
- Census Tract

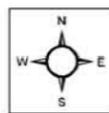
West of Devers Upgrade Project

Figure D.8-1
Census Tracts used in Socioeconomic Analysis

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Source: SCE 2013
 U.S. Census Bureau 2012b & 2012d



0 1 2 4 6 Miles

Legend

- ▲ Substation
- Transmission Line
- County Line
- ▨ 1-Mile Wide Corridor
- Census Tract Exceeding County-wide Minority Population
- ▩ Census Tract Exceeding County-wide Poverty Population

West of Devers Upgrade Project

Figure D.8-2
**Census Tracts meeting
 Environmental Justice Criteria**

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