2.2 Community Impacts

2.2.1 Community Character and Cohesion

2.2.1.1 Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration, in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Because this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

2.2.1.2 Affected Environment

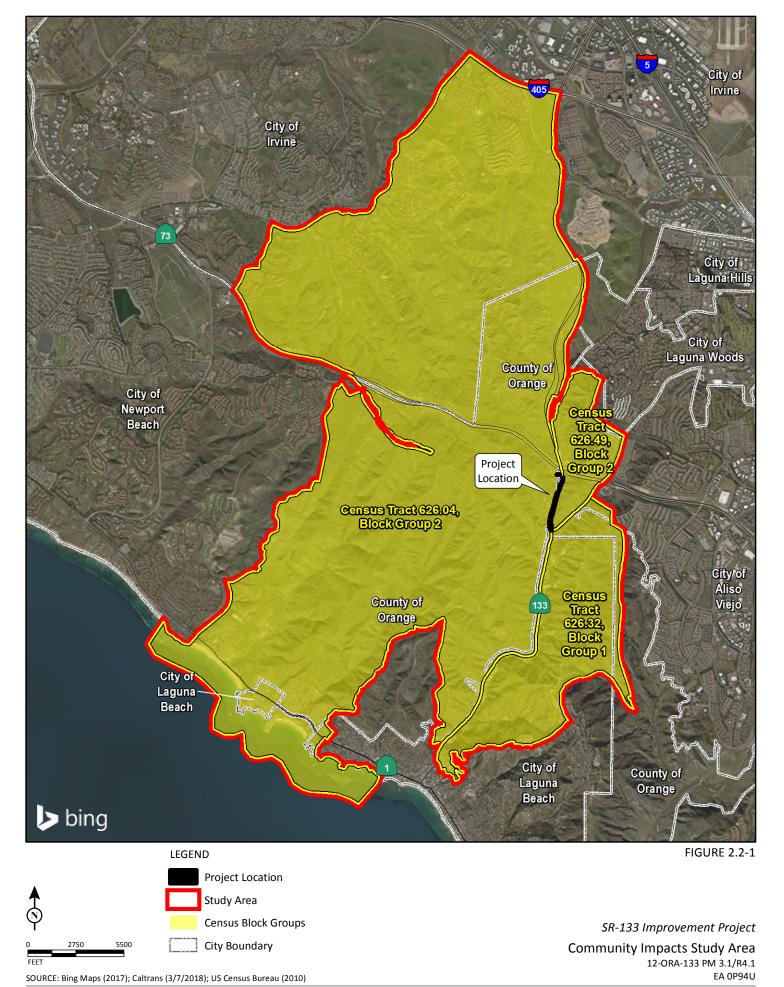
Community character refers to the degree to which the human environment is safe, healthful, productive, and aesthetically and culturally pleasing. The project area is in unincorporated Orange County and the City of Laguna Beach, surrounded by open space associated with the Aliso and Wood Canyons Wilderness Park, Laguna Coast Wilderness Park, and Laguna Laurel Ecological Reserve.

Community cohesion is the degree to which residents have a sense of belonging to their neighborhood, a commitment to the community, and a strong attachment to neighbors, groups, and institutions, usually as a result of continued association over time.

Demographic data compiled by the United States Census Bureau (U.S. Census Bureau), including the 2012–2016 American Community Survey (ACS), may be used to measure a community's level of cohesion. The following demographic indicators tend to correlate with a higher degree of community cohesion and are used to

determine the degree of community cohesion in the study area census tract block groups (refer to Figure 2.2-1):

- Ethnicity: In general, homogeneity of the population contributes to higher levels of community cohesion. Communities that are ethnically homogeneous often speak the same language, hold similar beliefs, and share a common culture and, therefore, are more likely to engage in social interaction on a routine basis.
- Household Size: In general, communities with a high percentage of families with children are more cohesive than communities comprised of largely single people. This appears to be because children tend to establish friendships with other children in their community. The social networks of children often lead to the establishment of friendships and affiliations among parents in the community.
- Housing Occupancy: Communities with a high percentage of owner-occupied residences are typically more cohesive because their population tends to be less mobile. Because they have a financial stake in their community, homeowners often take a greater interest in what is happening in their community than renters do. This means they often have a stronger sense of belonging to their community.
- Elderly Residents: In general, communities with a high percentage of elderly residents (65 years or older) tend to demonstrate a greater social commitment to their community. This is because the elderly population, which includes retirees, often tends to be more active in the community since they have more time available for volunteering and participating in social organizations.
- Transit-Dependent Population: Communities with a high percentage of residents that are dependent on public transportation typically tend to be more cohesive than communities that are dependent on automobiles for transportation. This is because residents who tend to walk or use public transportation for travel tend to engage in social interaction with each other more frequently than residents who travel by automobile. Although the U.S. Census Bureau does not provide specific data regarding the percentage of the population that is dependent on public transportation for travel, the 2012–2016 ACS does provide a series of demographic data that can be used to serve as a proxy for the transit-dependent population. For purposes of this analysis, the transit-dependent population was calculated by taking the number of residents age 15 and over (as reported in Table B01001 of the 2012–2016 ACS), subtracting the number of persons living in group quarters (as reported in Table B09019 of the 2012–2016 ACS),



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subtracting the number of vehicles available (as reported in Table B25046 of the 2012–2016 ACS), and then dividing the difference by the population age 15 and over.

• Housing Tenure: Communities with a high percentage of long-term residents are typically more cohesive because a greater proportion of the population has had time to establish social networks and develop an identity with the community. Table B25038 of the 2012–2016 ACS provides data regarding the year that each householder in the County and the three census tract block groups included within the study area moved into their current housing unit. For the purpose of this analysis, those households that moved into their current residence in 1999 or earlier are considered long-term residents since they have lived in their current residence for more than 15 years.

These indicators are assessed within the context of a community impacts study area (refer to Table 2.2.1). For the proposed project, the community impacts study area is defined as the three census tract block groups that intersect with or are adjacent to the project area: Census Tract 626.04, Block Group 2; Census Tract 626.32, Block Group 1; and Census Tract 626.49, Block Group 2. These indicators of community cohesion in the census tract block groups in the community impacts study area are described in greater detail below.

The study area census tract block groups are located in Census Tracts 626.04, 626.32, and 626.49, which are, in general, sparsely populated given the quantities of open space and recreation, vacant, and undevelopable or protected land in these areas, as discussed in Section 2.1, Land Use. According to the 2012–2016 ACS, Census Tract 626.04 has a total population of 15,571 people across approximately 20 square miles, indicating a density of approximately 779 people per square mile. Block Group 2 includes portions of the City of Irvine, the City of Laguna Beach, and unincorporated Orange County. However, most of the residents in Block Group 2 are clustered a minimum of four miles northwest of the project area in the City of Irvine, a minimum of three miles west of the project area and south of State Route 73 (SR-73) in unincorporated Orange County, and a minimum of four miles southwest of the project area in the City of Laguna Beach and unincorporated Orange County near the shoreline.

Table 2.2.1 Community Cohesion Indicators

Area ¹	Spanish Language Spoken at Home ^{2,3}	Average Household Size (persons) ⁴	Owner- Occupied Residences ⁵	Elderly Residents (>64 years old) ⁶	Transit- Dependent Population ^{7,8}	Long-Term Residents (Moved in 1999 or Earlier) ⁵	
Orange County	26.2%	3.04	57.2%	13.2%	17.9%	29.7%	
Study Area Census Tract Block Groups							
Census Tract 626.04, Block Group 2	2.9%	2.41	62.0%	9.3%	0.0%	5.7%	
Census Tract 626.32, Block Group 1	16.6%	2.26	62.6%	18.7%	1.2%	37.2%	
Census Tract 626.49, Block Group 2	13.5%	2.06	30.1%	6.3%	36.8%	15.0%	

¹ Italicized numbers in bold indicate the values are higher than the County of Orange average.

U.S. Census Bureau, 2012–2016 ACS, Table C16004. Website: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed April 2018).

At the Census Tract Block Group level, languages other than English that are spoken at home are provided for "Spanish," ""Other Indo-European," "Asian and Pacific Island," and "Other Languages." As insufficient information exists regarding the language categories other than Spanish to draw conclusions related to ethnically homogeneous communities, only Spanish is assessed as an indicator of community cohesion for this analysis.

U.S. Census Bureau, 2012–2016 ACS, Table B25010. Website: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed March 2018).

U.S. Census Bureau, 2012–2016 ACS, Table B25038. Website: https://factfinder.census.gov/faces/nav/isf/pages/searchresults.xhtml?refresh=t (accessed March 2018).

⁶ U.S. Census Bureau, 2012–2016 ACS, Tables B01003 and B16004. Website: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed March 2018).

The transit-dependent population was calculated by taking the number of residents age 15 and over (as reported in Table B01001 of the 2012–2016 ACS), subtracting the number of persons living in group quarters (as reported in Table B09019 of the 2012–2016 ACS, subtracting the number of vehicles available (as reported in Table B25046 of the 2012–2016 ACS), and then dividing the difference by the population age 15 and over.

U.S. Census Bureau, 2012–2016 ACS, Tables B01002, B09019, and B25046. Website: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed March and April 2018).

Census Tract 626.32 has a population of 3,668 across approximately six square miles, indicating a density of approximately 611 people per square mile. Most of the residents in Block Group 1 are clustered east of State Route 133 (SR-133) up to approximately three miles from the proposed project; some residential and public facilities (i.e., parks and a private school) are close to the southern boundary of the project area.

Census Tract 626.49 has a population of 3,206 across approximately one square mile, indicating a density of 3,206 per square mile. Most of the residents in Block Group 2 are clustered a minimum of 0.25 mile northeast of the proposed project and are physically separated from the project area by SR-73.

Table 2.2.1 shows the existing community cohesion indicators for the County and the study area census tract block groups:

- Ethnicity: All three study area census tract block groups have a lower proportion of residents aged five and above that reside in a household where the primary language spoken at home is Spanish than does the County.
- **Average Household Size (persons):** All three study area census tract block groups have a smaller average household size than does the County.
- Owner-Occupied Residences: The percentage of owner-occupied residents in Census Tract 626.04, Block Group 2 (62.0 percent), and Census Tract 626.32, Block Group 1 (62.6 percent), is higher than that of the County (57.2 percent).
- **Elderly Residents:** Elderly residents comprise a larger share of the population in Census Tract 626.32, Block Group 1 (18.7 percent), than the County (13.2 percent).
- **Transit-Dependent Population:** The transit-dependent population comprises a larger share of the population in Census Tract 626.49, Block Group 2 (36.8 percent), than that of the County (17.9 percent).
- Long-Term Residents (moved in 1999 or earlier): The percentage of long-term residents comprises a larger share of the population in Census Tract 626.32, Block Group 1 (37.2 percent), than that of the County (29.7 percent).

In summary, Census Tract 626.04, Block Group 2, and Census Tract 626.49, Block Group 2, exhibit only one indicator of community cohesion. Accordingly, these block groups appear to exhibit a relatively low degree of community cohesion in comparison to the overall County population. Census Tract 626.32, Block Group 1, exhibits three indicators of community cohesion. This block group has a higher ratio

of owner-occupied residents, elderly residents, and long-term residents in comparison to the County. Based on these factors, Census Tract 626.32, Block Group 1, appears to exhibit a moderate degree of community cohesion when compared to the County.

There are four community facilities—one private school, two County parks, and one California Department of Fish and Wildlife reserve—located within 0.5 mile of the project area. The Willowbrook Campus of Anneliese Schools is southeast of the project area. Aliso and Wood Canyons Wilderness Park is west of the southern portion of the project area. Laguna Coast Wilderness Park is located adjacent to the project area in the east, south, and west directions. The Laguna Coast Wilderness Park is also located north of the project area across SR-73. Laguna Laurel Ecological Reserve is located southeast of the southern portion of the project area.

The Willowbrook Campus of Anneliese Schools, a private school that provides education from nursery through sixth grade, is surrounded by the Laguna Coast Wilderness Park, and located at 20062 Laguna Canyon Road in the City of Laguna Beach. The Willowbrook Campus is a five-acre property that is directly accessible from SR-133 and includes open space, gardens, and outdoor recreation areas.

As described in Section 2.1.3.2, in Section 2.1, Land Use, there are two primary recreational facilities, with recreational amenities, within Laguna Coast Wilderness Park that are within 0.5 mile of the project area: the Dilley and Willow staging areas, which contain amenities including restrooms and parking areas and are located off SR-133. Additional recreational facilities within 0.5 mile of the project area include trails directly accessible from these staging areas, including the Lake, Sunflower, Mariposa, Canyon, Ridge Top, Blackjack, Laurel Canyon, Willow Canyon, and Stagecoach South trails.

2.2.1.3 Environmental Consequences

Temporary Impacts

Alternative 1 (Build Alternative)

Construction of the Build Alternative would not require temporary construction easements at Laguna Coast Wilderness Park as all construction work would be within permanent easements. Impacts from permanent easements are discussed under the discussion of permanent impacts below. Construction of the Build Alternative would not result in a Section 4(f) temporary use of or temporary changes in access to recreational facilities within Laguna Coast Wilderness Park. Construction of the Build Alternative would also not result in direct temporary impacts to Aliso and

Wood Canyons Wilderness Park and the Willowbrook Campus of Anneliese Schools, as these resources are outside of the project area.

However, traffic operations along SR-133 may be affected by partial road closures associated with the construction of the proposed project, as discussed in Section 2.4. Construction of the Build Alternative would occur over approximately 26 months. As described in Section 2.4, Traffic and Transportation/Pedestrian and Bicycle Facilities, a Transportation Management Plan (TMP) (Project Feature PF-TR-1) would be finalized as a project design feature to avoid and minimize construction-related traffic and circulation impacts related to detours and closures, thus reducing impacts to the surrounding communities. TMP objectives include enhancing motorist and worker safety during construction, and maintaining an acceptable level of traffic flow during construction. However, construction-related closures could impede movement, and there would be some degree of inconvenience to communities due to constructionrelated delays, temporary closures, and construction equipment operation. These effects would be minimized through implementation of Project Feature PF-TR-1, which would include, but is not limited to, the following actions: a public information/awareness campaign to educate surrounding communities about construction activities, traveler information strategies to ensure that motorists are informed about travel plans with real-time traffic information, incident management to ensure incidents near construction areas are cleared quickly to reduce potential delays in work zones, construction strategies to lessen the transportation effects of construction, demand management to reduce the overall traffic volumes on the project segment of SR-133, and alternate route strategies to inform travelers of alternate routes/detours.

In addition, as described in Section 2.3, Utilities/Emergency Services, some impairment to emergency services, including fire and police response time, may occur during temporary lane closures. However, these effects would be minimized through implementation of Project Feature PF-UES-2, which would ensure that all temporary lane closures are coordinated with emergency service providers to minimize temporary delays in emergency response times.

As discussed above, as they are outside of the project area, access to the Willowbrook Campus of Anneliese Schools and the nearby recreational facilities would not be restricted during construction. Closures and detours would be temporary in nature and coordinated with applicable service providers and local communities to avoid and/or minimize community impacts. Therefore, with implementation of Project Feature

PF-TR-1, temporary traffic-related impacts to the community during construction would be reduced. As discussed in Section 2.2.1.2, Census Tract 626.04 in Block Group 2 and Census Tract 626.49 in Block Group 2 each has a low level of community cohesion, and Census Tract 626.31 in Block Group 1 has a moderate level of community cohesion. Therefore, temporary traffic-related effects could result in a temporary disruption to community cohesion in this census tract block group. However, these effects would be temporary and would not represent a long-term disruption to community cohesion in this community.

Alternative 2 (No Build Alternative)

No improvements to SR-133 other than routine maintenance are proposed under the No Build Alternative. SR-133 would remain as is, with the exception of other proposed projects that are under development or currently under construction. Therefore, the No Build Alternative would not result in temporary adverse effects.

Permanent Impacts

Alternative 1 (Build Alternative)

Construction of the proposed project would not require the acquisition of private property. However, implementation of the Build Alternative would permanently acquire 0.93 acre of land, which is within the Laguna Coast Wilderness Park. In addition, construction of the proposed project would require a total of 0.75 acre of land for permanent easements at the edges of the Laguna Coast Wilderness Park; drainage work and potential temporary impacts would occur within these permanent easements. In addition, because the acquired land is located adjacent to the existing SR-133 facility, the proposed widening associated with the Build Alternative would not result in permanent effects by dividing or limiting access to or from neighborhoods or community facilities and would not result in community cohesion effects. The project includes the undergrounding of utilities particularly from El Toro road to the SR-73 interchange, which would have a positive visual impact on the community. In addition, the addition of bicycle lanes would enhance and add value to the recreational activities of the community. The Build Alternative involves constructing improvements along an existing roadway and would not create any new or exacerbate any existing physical divisions in the project area.

Alternative 2 (No Build Alternative)

The No Build Alternative would maintain the existing configuration of SR-133 in the project area. Under the No Build Alternative, the proposed project would not be constructed, and no permanent effects to community cohesion would occur.

2.2.1.4 Avoidance, Minimization, and/or Mitigation Measures

With incorporation of Project Feature PF-TR-1 referenced in Section 2.2.1.3 and provided in Section 2.4 and Project Feature PF-UES-2 referenced in Section 2.3, Utilities/Emergency Services, no avoidance, minimization, and/or mitigation measures are necessary.

2.2.2 Environmental Justice

2.2.2.1 Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the United States Department of Health and Human Services poverty guidelines. For 2018, this threshold was \$25,100 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, signed by the Director, which is provided in Appendix B of this document.

2.2.2.2 Methodology

The Council on Environmental Quality (CEQ), the advisory body that has oversight of the federal government's compliance with EO 12898 and NEPA, has developed guidance for implementing environmental justice under NEPA. The CEQ guidance recommends identifying minority populations where either (a) the minority population of the affected area exceeds 50 percent, or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

In January 2003, Caltrans published the *Desk Guide*, *Environmental Justice in Transportation Planning and Investments* (Desk Guide), which provides information and examples of ways to promote environmental justice to those involved in making decisions regarding California's transportation system. The Desk Guide notes that transportation agencies, particularly those in a state as diverse as California, may need

to adapt the regulatory definitions of minority populations to conduct a meaningful analysis. In regions with high minority populations, for instance, use of the standard definitions to define such populations could result in selection of most of the region. Because Orange County contains substantial minority populations, a different standard is required to identify those census tract block groups in the study area where minority populations are present in meaningfully greater percentages than the general population in the County. Therefore, for purposes of this analysis, a threshold 10 percentage points higher than that of Orange County was chosen as the metric for evaluating whether a meaningfully greater percentage of minorities was present within the study area census tract block groups. In addition, a threshold five percentage points higher than that of Orange County was chosen as the metric for evaluating whether a meaningfully greater percentage of persons living below the poverty level was present within the study area census tract block groups.

2.2.2.3 Affected Environment

The environmental justice analysis was conducted using demographic information from the 2012–2016 ACS (refer to Table 2.2.2). The following populations were considered in assessing whether the Build Alternative would result in disproportionate impacts to environmental justice populations and whether those alternatives would result in benefits for those populations:

- Minority Population: Defined as individuals who do not identify themselves as non-Hispanic White. As described in the methodology set forth above, study area census tract block groups are considered to have a substantial minority population if the aggregated percentage of minority residents within them is more than ten points higher than that of Orange County (therefore, 68 percent or higher).
- Low-Income Population: Low-income populations are those persons living below the poverty level as defined as the U.S. Census Bureau's poverty threshold. As described above, the U.S. Census Bureau's preliminary weighted average poverty threshold for a family of four ranged from \$25,283 with no children under 18 years of age to \$24,944 with three related children under 18 years of age for 2017. As described in the methodology set forth above, study area census tract block groups are considered to have substantial low-income populations if the percentage of persons living below the poverty level within them is more than five percentage points higher than Orange County (therefore, 17.5 percent or higher).

Table 2.2.2 Minority and Low-Income Populations

Area ¹	Minorities ^{2,3}	Low-Income Population ⁴
Orange County	58.0%	12.5%
Study Area Census Tract Block Groups		
Census Tract 626.04, Block Group 2	48.6%	3.9%
Census Tract 626.32, Block Group 1	13.4%	5.3%
Census Tract 626.49, Block Group 2	33.9%	21.1%

Source: Source: U.S. Census Bureau, 2012–2016 American Community Survey (ACS). Website: https://fact finder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed March 2018).

As shown in Table 2.2.2 above and discussed previously in Section 2.2.2.2, none of the study area census tract block groups contain substantially greater minorities than those of Orange County. The low-income population of Census Tract 626.49, Block Group 2, comprises 21.2 percent of the total population in this block group, which is substantially greater than the low-income population of Orange County. As discussed in Section 2.2.1.2, Census Tract 626.49 is sparsely populated; although residents within Block Group 2 are clustered a minimum of 0.25 mile northeast of the proposed project, they are physically separated from the project area by SR-73.

In summary, none of the study area census tract block groups contains a substantial minority population, and one of the three study area census tract block groups (Census Tract 626.49, Block Group 2) contains a substantial low-income population.

2.2.2.4 Environmental Consequences

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended, and EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Title VI states that "No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." EO 12898 requires each federal agency (or its designee) to take the appropriate and

Bold italicized numbers indicate the values are substantially higher than the County. For minority populations, "substantially greater" means 10 percentage points higher than the percentage for the County (i.e., 68 percent). For low-income populations, "substantially greater" means five percentage points higher than the percentage for the County (i.e., 17.5 percent).

The percentage of racial minorities was calculated by subtracting the White, non-Hispanic population from the total population and identifying all other populations as minorities.

U.S. Census Bureau, 2012-2016 ACS, Table B3002. Website: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed March 2018).

⁴ U.Š. Census Bureau, 2012–2016 ACS, Table B17021. Website: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed March 2018). Persons living below the poverty level in the past 12 months as defined as the U.S. Census Bureau's poverty thresholds. For 2017, the U.S. Census Bureau's preliminary weighted average poverty threshold for a family of four ranged from \$25,283 with no children under 18 years to \$24,944 with three related children under 18 years of age (between \$156 more than and 183 less than the United States Department of Health and Human Services poverty guidelines threshold for 2018 [\$25,100]).

necessary steps to identify and address "disproportionately high and adverse" effects of federal or federally funded projects on minority and low-income populations.

Consistent with this guidance, the environmental justice analysis for the proposed project describes the existing population in the community impacts study area and the presence of minority and low-income population groups in the community impacts study area. As shown in Table 2.2.1 and discussed previously in Section 2.2.2.2, none of the study area census tract block groups contain substantially greater minorities than those of Orange County, and one of the three study area census tract block groups (Census Tract 626.49, Block Group 2) contains substantially greater low-income populations than those of Orange County. These low-income populations are located a minimum of 0.25 mile northeast of the project area. Although they are physically separated from the project area by SR-73, these populations could experience temporary impacts during construction of the Build Alternative.

Construction of the proposed project, which would occur over approximately 24 months, would temporarily require the short-term full or partial closure of SR-133 within the project area. As specified in Project Feature PF-TR-1 in Section 2.4, a TMP would be prepared as a project feature to avoid and minimize constructionrelated traffic and circulation impacts related to detours and closures, thus reducing impacts to the surrounding communities. As discussed in Section 2.2.1, constructionrelated closures could impede traffic movement, and there would be some degree of inconvenience due to construction-related delays, temporary closures, and construction equipment operation. Nevertheless, construction-related closures could impede movement in the project area, which would result in temporary effects to residents in the area, including residents within Census Tract 626.49, Block Group 2. Construction of the proposed project would have evenly distributed effects on all communities in close proximity to the project footprint (including low-income and minority populations as well as non-low income and nonminority populations). As discussed in Section 2.1.3, the Build Alternative would not result in any residential displacements. Operation of the proposed project would maintain the current configuration of SR-133 in the project area and would improve drainage, safety, and bicycle access within the project area.

The temporary construction impacts discussed above would occur to both Environmental Justice and non-Environmental Justice populations and would not represent a disproportionate adverse impact. In addition, these impacts would be temporary, and with implementation of Project Feature PF-TR-1, temporary

construction-related traffic impacts to the community would be avoided and/or minimized.

2.2.2.5 Avoidance, Minimization, and/or Mitigation Measures

Based on the above discussion and analysis, the proposed project would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of EO 12898. No avoidance, minimization, or mitigation measures are required, and no further environmental justice analysis is required.

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