

5 ENVIRONMENTAL JUSTICE

Since publication of the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS), the following substantive changes have been made to this chapter:

- Analysis about the Diridon design variant (DDV) and tunnel design variant (TDV), which was
 included in Section 3.20 in the Draft EIR/EIS, was incorporated into this chapter.
- The status of the California High-Speed Rail Authority's (Authority) environmental justice analysis was updated in Section 5.1, Introduction.
- Sections 5.1 and 5.4 were clarified to describe that low-income populations were identified based on U.S. Census poverty thresholds and not the Department of Health and Human Services poverty guidelines.
- Section 5.2.1.4, Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (USDOT Order 5610.2C), was updated to discuss the new changes in U.S. Department of Transportation (USDOT) orders.
- Section 5.3.2.3, Methods for Determining Disproportionately High and Adverse Effects, was revised to clarify definitions.
- Identifying potential community improvements was added to the list of feedback gathered from outreach efforts in Section 5.3.2.4, Environmental Justice Engagement.
- Section 5.4, Affected Environment, was updated to include revised figures showing where the
 percentage of minority populations or low-income populations in the resource study area
 exceed the share of minority population or low-income populations in the reference
 community and to update certain demographic data.
- Section 5.5, Environmental Justice Engagement and Documentation, was updated to include additional outreach events held since December 2019,
- Section 5.6.2, No Project Alternative, was updated to indicate the percent minority populations in Santa Clara, San Benito, and Merced Counties.
- Section 5.6.3.1, Construction Impacts, and Section 5.6.3.2, Operations Impacts, were
 updated to fully take into consideration project benefits to minority populations and lowincome populations and to reflect revisions to the analyses of traffic, construction bus transit
 delay, displacements, safety and security, noise, and vibration. Revised and new direct
 mitigation was considered in relation to traffic, displacement, and safety and security.
 Geographic locations of effects were added for clarification. Clarifications were also made for
 the air quality, greenhouse gas, floodplain, cultural resources, and public utilities and energy
 sections of this Final EIR/EIS.
- The discussion of cumulative projects, including Google's Downtown West project, was updated in Section 5.6.3.3, Cumulative Impacts.
- Section 5.7, Summary of Disproportionately High and Adverse Effects Prior to Consideration of Community Improvements, was updated to describe revised identification of effects.
- Section 5.8, Offsetting Mitigation Measures, was updated to describe certain community improvements are under consideration to offset certain disproportionately high and adverse effects.
- Section 5.9, California High-Speed Rail Authority's Environmental Justice Determination, was updated with the Final Environmental Justice Determination.
- Two new appendices, Appendix 5-C, Environmental Justice Development of Community Improvements as Offsetting Mitigation, and Appendix 5-D, Preferred Alternative, Maps of Disproportionately High and Adverse Effects Before Consideration of Offsetting Mitigation, were added to Volume 2, Technical Appendices.



5.1 Introduction

This chapter describes the existing conditions related to environmental justice and minority populations and low-income populations within the reference community and the resource study area (RSA). It summarizes the environmental justice engagement with minority populations and low-income populations and key issues and concerns raised by these populations. The chapter analyzes the potential effects of the No Project Alternative and the San Jose to Central Valley Wye Project Extent (project extent or project) alternatives on minority populations and low-income populations and identifies whether the project alternatives would have a disproportionately high and adverse effect on minority populations and low-income populations, and describes potential cumulative effects that could occur in combination with past, present, and reasonably foreseeable future actions. This environmental justice analysis was prepared by the California High-Speed Rail Authority (Authority) pursuant to 23 United States Code (U.S.C.) Section 327 and the terms of the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (MOU) (Federal Railroad Administration [FRA] and State of California 2019) assigning the Authority responsibility for complying with NEPA and other federal environmental laws, including U.S. Presidential Executive Order (USEO) 12898 and related USDOT orders and guidance.

The data used in the analysis are derived from various sources, including the U.S. Census Bureau 2010 Decennial Census and the 2010–2014 U.S. Census Bureau American Community Survey (ACS) 5-Year Estimates. In all cases the most reliable data were used to document the demographic and economic characteristics of the reference community and the RSA.

The San Jose to Merced Project Section Draft Community Impact Assessment (Community Impact Assessment) (Authority 2019a) and San Jose to Merced Project Section Draft Relocation Impact Report (Authority 2019b) provide additional technical information about communities that supports this environmental justice analysis. The following appendices in Volume 2 of this Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) are also relevant to the environmental justice analysis:

- Appendix 2-D, Applicable Design Standards, provides the list of relevant design standards for the project alternatives.
- Appendix 2-E, Project Impact Avoidance and Minimization Features, provides the list of all impact avoidance and minimization features (IAMF) incorporated into this project.
- Appendix 2-J, Regional and Local Plans and Policies, provides a list by resource of all applicable regional or local plans and policies.
- Appendix 5-A, Environmental Justice Outreach Plan, describes outreach methods to identify and reach minority populations and low-income populations potentially affected by the project alternatives.
- Appendix 5-B, Environmental Justice Engagement Summary Report, documents the Authority's outreach to minority populations and low-income populations, as well as feedback received from these populations.
- Appendix 5-C, Environmental Justice Development of Community Improvements as
 Offsetting Mitigation, describes the community improvements development process and
 provides profiles of certain community improvements that are being proposed as offsetting
 mitigation to reduce certain residual disproportionately high and adverse effects.
- Appendix 5-D, Preferred Alternative, Maps of Disproportionately High and Adverse Effects Before Consideration of Offsetting Mitigation.

Environmental justice in terms of transportation projects can be defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, from the early stages of transportation planning and investment decision making through construction, operations, and maintenance. The analysis of environmental justice must address, to the extent practicable and permitted by law, the potential disproportionately high and adverse human health or environmental effects of transportation projects' programs, policies, and activities on minority



populations and low-income populations. Environmental justice is an important consideration for transportation projects because of the potential effects on the quality of life of individuals and groups living and working within the RSA.

Issues and concerns that were raised by the public and interested stakeholders during environmental justice engagement efforts include: (1) property impacts and displacements, (2) impacts on community character and cohesion, (3) project-related noise, (4) traffic congestion and road closures, (5) safety and security, (6) aesthetic effects, (7) availability of affordable housing, (8) project effects on businesses, business employment, and property values, and (9) induced growth and cumulative neighborhood effects.

The resource sections in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures, of this Final EIR/EIS provide additional information related to assessing the project's effects on resources that could also affect minority populations and low-income populations.

5.1.1 Definition of Resources

The following are definitions for minority populations and low-income populations analyzed in this Final EIR/EIS:

- Minorities—Minority includes persons who are American Indian and Alaskan Native, Asian,
 Black or African American, Hispanic or Latino, and Native Hawaiian and other Pacific
 Islander. A minority population means any readily identifiable group or groups of minority
 persons who live in geographic proximity and, if circumstances warrant, geographically
 dispersed or transient persons (such as migrant workers, students, or Native Americans) who
 could be affected by a proposed program, policy, or activity.
- Low-Income Low-income means a person whose median household income is at or below the U.S. Census poverty thresholds, or a locally developed threshold that is at least as inclusive as the poverty guidelines. A low-income population means any readily identifiable group of low-income persons who live in geographic proximity and, if circumstances warrant, geographically transient persons (such as migrant workers, students, or Native Americans) who could be affected by a proposed program, policy, or activity. For the purposes of this analysis, low-income populations in San Benito and Merced Counties are defined using the U.S. Census poverty thresholds. A locally developed threshold is used for Santa Clara County to account for the substantially higher household incomes and cost of living in the San Francisco Bay Area (Bay Area) relative to other California counties. Low-income populations within Santa Clara County are defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.¹

5.2 Laws, Regulations, and Orders

Federal and state laws, regulations, and orders relevant to the analysis of environmental justice in this Final EIR/EIS are presented in this section. The Authority will implement the California High-Speed Rail (HSR) system, including the project, in compliance with all federal and state regulations. Regional and local plans and policies relevant to environmental justice considered in the preparation of this analysis are provided in the Socioeconomics and Communities section of Appendix 2-J in Volume 2.

5.2.1 Federal

5.2.1.1 Title VI of the Civil Rights Act (42 U.S.C. § 2000(d) et seq.)

Title VI of the Civil Rights Act (42 U.S.C § 2000(d) et seq.) prohibits discrimination on the basis of race, color, national origin, age, sex, or disability in programs and activities receiving federal financial assistance. Under Title VI, each federal agency is required to make sure that no person, on the grounds of race, color, or national origin, is excluded from participation in, denied the

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¹ This is consistent with the approach adopted by the Metropolitan Transportation Commission.



benefits of, or subjected to discrimination under any program or activity receiving federal financial assistance.

5.2.1.2 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (USEO 12898)

USEO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, outlines the federal government's environmental justice policy. The USEO requires federal agencies to identify and address to the greatest extent practicable and permitted by law the disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

5.2.1.3 Presidential Memorandum Accompanying USEO 12898

The Presidential Memorandum accompanying USEO 12898 emphasizes the importance of existing laws, such as Title VI of the Civil Rights Act of 1964 and NEPA, that can assist with implementation of the principles of the order. The memorandum provides that, in accordance with Title VI, "each Federal agency shall ensure that all programs or activities receiving Federal assistance that affect human health or the environment do not directly, or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin." It calls for specific actions to be directed in NEPA-related activities. They include:

- Analyzing environmental effects, including human health, economic, and social effects on minority populations and low-income populations when such analysis is required by NEPA.
- Ensuring that mitigation measures outlined or analyzed in environmental assessments, environmental impact statements, and Records of Decision, whenever feasible, address disproportionately high and adverse environmental effects of proposed actions on minority populations and low-income populations.
- Providing opportunities for community input in the NEPA process, including identifying potential
 effects and mitigation measures in consultation with affected communities and improving
 accessibility to public meetings, official documents, and notices to affected communities.

5.2.1.4 Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (USDOT Order 5610.2C)

To implement USEO 12898, USDOT relies on USDOT 5610.2C issued on May 14, 2021 (USDOT 2021), which replaced USDOT Order 5610.2B issued on November 18, 2020, which replaced the prior USDOT Order 5610.2(a) from May 2012. Order 5610.2C applies to actions undertaken by USDOT operating administrations, including the FRA. The USDOT Order affirms the importance of considering environmental justice principles as part of early planning activities in order to avoid disproportionately high and adverse effects. The Order states that USDOT will not carry out any programs, policies, or activities that will have a disproportionately high and adverse effects on minority populations or low-income populations unless "further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable." The Order also states that "[i]n making determinations regarding disproportionately high and adverse effects on minority and low-income populations, mitigation and enhancement measures that will be implemented and all offsetting benefits to the affected minority and low-income populations may be taken into account, as well as the design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas."

5.2.1.5 Improving Access to Services for Persons with Limited English Proficiency (USEO 13166)

USEO 13166 requires each federal agency to make sure that recipients of federal financial assistance provide meaningful access to their programs and activities by limited English



proficiency applicants and beneficiaries. Meaningful access can include availability of vital documents, printed and internet-based information in one or more languages, depending on the location of the project, and translation services during public meetings.

5.2.1.6 Uniform Relocation Assistance and Real Property Acquisition Policies Act (42 U.S.C. § 61)

The Uniform Relocation Assistance and Real Property Act (Uniform Act), passed by Congress in 1970 (42 U.S.C. § 61), stipulates that persons displaced from homes, businesses, and farms as a result of a federal action or by an undertaking involving federal funds must be treated fairly, consistently, and equitably. This protects people so that they will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. The objectives of the Uniform Act are to:

- Provide uniform, fair, and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally funded projects.
- Make certain relocation assistance is provided to displaced persons to lessen the emotional and financial effects of displacement.
- Make certain that no individual or family is displaced unless decent, safe, and sanitary housing is available within the displaced person's financial means.
- Help improve the housing conditions of displaced persons living in substandard housing.
- Encourage and expedite acquisition by agreement and without coercion.

5.2.2 State

An environmental justice analysis is required by federal law but is not explicitly required by the State of California. The California Environmental Quality Act (CEQA) focuses on whether a project would have a significant impact on the physical environment and whether the environmental impacts of a project would cause substantial adverse impacts on human beings. Although specific provisions of CEQA require consideration of how the environmental and public health burdens of a project would affect certain communities (e.g., through consideration of the environmental setting and the assessment of cumulative impacts of a project), CEQA does not directly address environmental justice or the fair treatment of individuals and communities, and, as a result, CEQA determinations are not included in this chapter.

5.2.2.1 California Government Code Section 11135(a), 11136

Section 11135(a) of the California Government Code prohibits discrimination or the denial of full and equal access to benefits of any program or activity operated or funded by the state or a state agency on the basis of race, national origin, ethnic group identification, religion, age, sexual orientation, color, or disability. This provision requires public agencies to consider fairness in the distribution of environmental benefits and burdens.

5.2.2.2 California Government Code Section 65040.12(e)

Section 65040.12(e) defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." It does not, however, require an analysis of impacts on these populations as part of the CEQA process.

5.2.2.3 California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund (SB 535) (De León)

The California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund requires the California Environmental Protection Agency (Cal-EPA) to identify disadvantaged communities for investment opportunities, as specified. The bill requires the California Department of Finance, when developing a specified 3-year investment plan, to allocate 25 percent of the available moneys in the Greenhouse Gas Reduction Fund to projects that provide benefits to disadvantaged



communities, as specified, and to allocate a minimum of 10 percent of the available moneys in the Greenhouse Gas Reduction Fund to projects located within disadvantaged communities. The bill requires the California Department of Finance, when developing funding guidelines, to include guidelines for how administering agencies should maximize benefits for disadvantaged communities. Senate Bill 535 also requires that the administering agencies report to the California Department of Finance, which in turn, provides a description of how these agencies have fulfilled specified requirements relating to projects providing benefits to, or located in, disadvantaged communities to the Legislature in a specified report.

5.2.3 Regional and Local

The city and county general plans presented in the Socioeconomic and Communities section of Appendix 2-J in Volume 2 of this Final EIR/EIS include goals and policies focused on providing fair and equitable housing and public facilities regardless of age, disability, race, culture, or income; preserving community character and minimizing incompatible land use conflicts; encouraging pedestrian and bicycle transportation in community design and improving mobility for urban and rural populations; and protecting agricultural lands and the associated agricultural economy. These plans and polices are applicable to the analysis of environmental justice. Consistency of the project alternatives with these and other policies that affect all communities within the local plan areas are addressed in Section 3.12.3, Consistency with Plans and Laws.

5.3 Methods for Evaluating Effects

The evaluation of effects on minority populations and low-income populations is a federal requirement of USEO 12898. The following sections summarize the RSA and the methods used to analyze effects on minority populations and low-income populations. Throughout this chapter, minority populations and low-income populations are treated equally as environmental justice communities. Effects on minority populations and low-income populations have the same importance and consideration in all conclusions and determinations.

5.3.1 Definition of Reference Community and Resources Study Area

The reference community is the area comprising the general population that could be affected by the project. The RSA encompasses the area where introduction of an HSR system is most likely to result in substantial changes or adverse effects on minority populations and low-income populations.

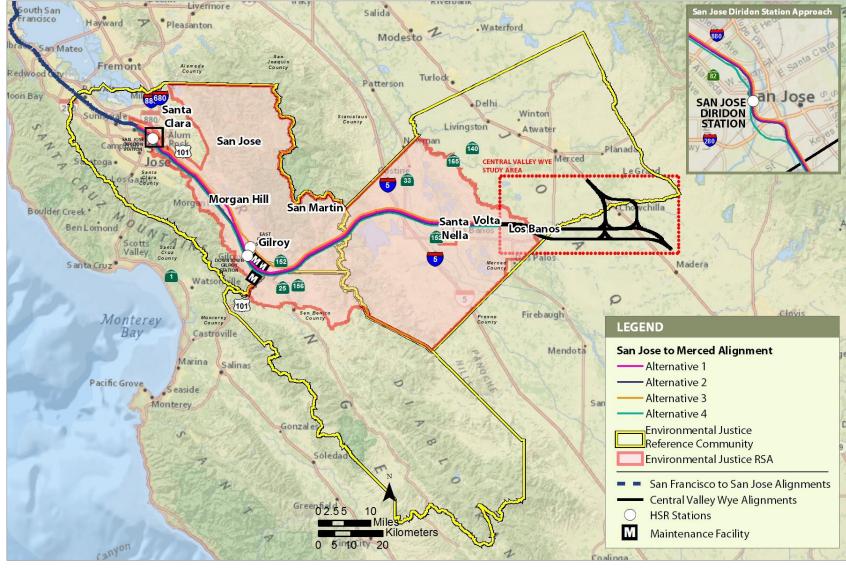
The reference community for this environmental justice analysis is the three-county region of Santa Clara, San Benito, and Merced Counties (Figure 5-1). This area represents the general population that could be affected adversely or beneficially by the project alternatives. Information for these three counties is presented throughout this analysis to provide context and allow for comparison and contrast among communities within the RSA and the surrounding areas.

The RSA for direct and indirect effects on minority populations and low-income populations is defined as the census tracts partially or fully within the project alternatives' footprints and a 0.5-mile buffer zone from the project footprints (Figure 5-1). This includes the project footprint for each of the project alternatives that might be directly affected and adjoining areas that might be indirectly affected.

Potentially affected communities within the RSA include portions of Santa Clara, San Jose, Morgan Hill, San Martin, Gilroy, Santa Nella, Volta, and Los Banos. The population is largely concentrated in the northern portion of the RSA within the cities of Santa Clara County, whereas the southern and eastern portions of the RSA consist of rural agricultural or open-space lands in Santa Clara, San Benito, and Merced Counties with low population densities (Figure 5-2). Because the RSA is established based on census tracts—the size of which can vary substantially based on the population density²—some census tracts within the RSA are large and extend for miles beyond the project alternatives' footprints. Minority populations and low-income populations

² According to the U.S. Census Bureau, the optimum size for a census tract is approximately 4,000 people. Therefore, the spatial size of the census tract varies based on population density. Census tracts are smaller in dense urban areas and larger in areas with low population densities (U.S. Census Bureau 2012).

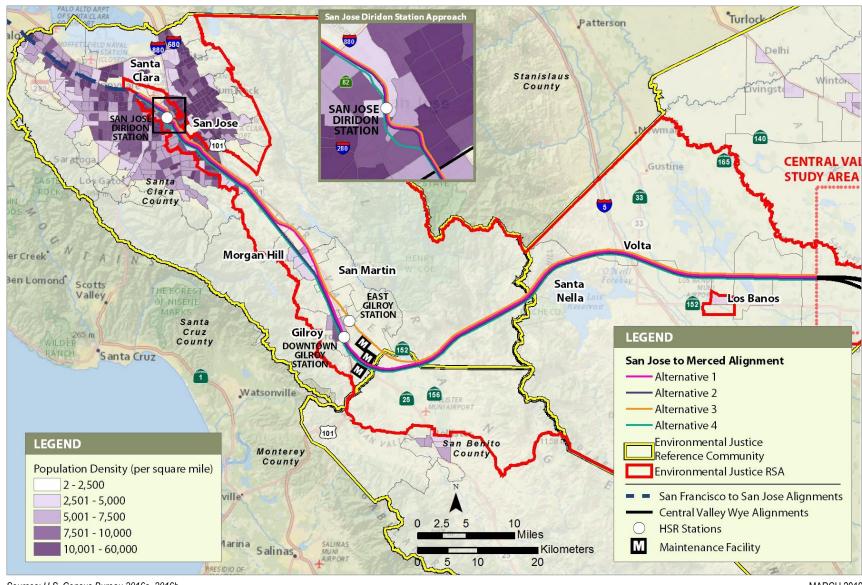




Sources: U.S. Census Bureau 2016a, 2016b MARCH 2019

Figure 5-1 Environmental Justice Reference Community and Resource Study Area





Sources: U.S. Census Bureau 2016a, 2016b

MARCH 2019

Figure 5-2 Population Density within the Environmental Justice Reference Community



within the environmental justice RSA but farther than 0.5 mile from the project footprints would be unlikely to experience adverse environmental or community effects. Consequently, the environmental justice RSA includes a larger area and greater population than would likely be affected by the project alternatives.

The cumulative RSA for environmental justice is defined as the area encompassing portions of Santa Clara, San Jose, Morgan Hill, San Martin, Gilroy, Santa Nella, Volta, and Los Banos, as well as the unincorporated areas of Santa Clara, San Benito, and Merced Counties. The cumulative RSA for environmental justice is the same as the RSAs for direct and indirect effects on minority populations and low-income populations, defined as the census tracts partially or fully within the project alternatives' footprints and a 0.5-mile buffer zone from the project footprints. It captures adverse effects associated with construction and operations of the project alternatives as well as regional effects on minority populations and low-income populations associated with anticipated planned development.

5.3.2 Methods for Effects Analysis

This section describes the sources and methods the Authority used to analyze potential effects of implementing the project alternatives on minority populations and low-income populations. Refer to the Community Impact Assessment (Authority 2019a) for more information regarding the methods and data sources used in this analysis. Laws, regulations, and orders (Section 5.2, Laws, Regulations, and Orders) pertaining to environmental justice were also considered in the evaluation of effects on minority populations and low-income populations.

5.3.2.1 Identification of Minority Populations, Low-Income Populations, and Other Sensitive Populations

Analysts obtained census tract low-income data and minority data from the 2010–2014 ACS 5-Year Estimates for the reference community and the environmental justice RSA.³ Minority populations and low-income populations are defined in Section 5.1, Introduction.

Minority populations and low-income data were mapped using geographic information systems to determine the locations and concentrations of minority populations and low-income populations. Analysts identified census tracts where the percent minority or low-income exceeds that of the reference community. To confirm the accuracy of this data for use in this environmental justice analysis, analysts performed additional quantitative validation methods, including the examination of other proxy data sources that would indicate the current locations of minority populations and low-income populations. The low-income populations in the RSA were validated by ACS data on participation in social service programs, such as the percentage of households receiving coupons through the Supplemental Nutrition Assistance Program (SNAP).

Analysts also identified the presence of sensitive populations, such as elderly, disabled, and linguistically isolated populations within the reference community and RSA. Elderly populations represent individuals who are over the age of 65. Disabled populations include those individuals who have difficulties with hearing, vision, cognition, mobility, self-care, or independent living. Linguistically isolated populations are readily identifiable groups of persons over 14 years of age who do not speak English very well or at all. Data on these populations was obtained from 2010–2014 ACS 5-Year Estimates.

The identification of sensitive populations informed the outreach team of areas needing special outreach consideration (e.g., populations requiring interpreters or different types of media). The Authority used this information to tailor outreach activities for more effective public participation and distribution of information. The identification of minority populations and low-income populations was used to evaluate construction and operations effects on minority populations and low-income populations for the environmental justice analysis.

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³ The 2010–2014 ACS 5-Year Estimates (released in January 2016) were the most recently available data at the time of the analysis.



5.3.2.2 Methods for Identifying Adverse Effects on Minority Populations and Low-Income Populations

USEO 12898 requires federal agencies to address the potential for their programs, policies, and activities to have a disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. Analysts reviewed the resource sections in Chapter 3 and identified impacts on environmental or community resources with the potential to affect minority populations and low-income populations. USDOT Order 5610.2C defines *adverse effects* as meaning "the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to:

- Bodily impairment, infirmity, illness, or death;
- Air, noise, and water pollution and soil contamination;
- Destruction or disruption of built or natural resources;
- Destruction or diminution of aesthetic values;
- Destruction or disruption of community cohesion or a community's economic vitality;
- Destruction or disruption of the availability of public and private facilities and services;
- Vibration;
- Adverse employment effects;
- Displacement of persons, businesses, farms, or nonprofit organizations;
- Increased traffic congestion, isolation, exclusion, or separation of minority or low-income; individuals within a given community from a broader community⁴; and
- The denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities."

This assessment was accomplished by reviewing the construction and operations effects identified in each resource section, including details regarding the RSA, the magnitude of the effect, whether effects are adverse or beneficial, the duration of effects (temporary or permanent), and the geographic location of the effects under each project alternative relative to the identified minority populations and low-income populations within the environmental justice RSA. Where the project would result in no effect on minority populations and low-income populations or would result in an effect that does not warrant mitigation, the effect was considered to be not adverse, and no further analysis was conducted. Analysts evaluated adverse effects in the environmental justice analysis based on the following considerations:

- Effects that were minimized through mitigation were evaluated to determine whether the
 mitigation measures (1) were equally applied to minority populations and low-income
 populations and non-minority populations and non-low-income populations and (2) if they
 addressed the concerns of the minority populations and low-income populations. If the
 mitigation measures were not successful in addressing (1) and (2) above, effects were
 considered adverse.
- Effects that were not substantially reduced through mitigation were considered adverse

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⁴ For the Final EIR/EIS, traffic effects are considered adverse effects on minority populations or low-income populations if either of the following are true: (1) traffic delays exceed the criteria for an adverse effect defined in Section 3.2; or (2) traffic delays would result in isolation, exclusion, or separation of minority individuals or low-income individuals within a given community from a broader community.



5.3.2.3 Methods for Determining Disproportionately High and Adverse Effects

Once adverse effects on minority populations and low-income populations were identified, analysts evaluated whether effects that would adversely affect minority populations and low-income populations would have disproportionately high and adverse effects on these populations. A disproportionately high and adverse effect on minority populations and low-income populations is generally defined as an effect that either:

- Would be predominantly borne by minority populations or low-income populations.
 - Analysis applying this criterion examined whether more than 50 percent of adverse
 effects would occur within census tracts that contain either minority populations or lowincome populations in greater proportion than the reference community and thus would
 be "predominantly borne" by minority populations or low-income populations.
- Would be suffered by minority populations and low-income populations and would be appreciably more severe or greater in magnitude than the adverse effect suffered by the non-low-income and non-minority populations.
 - Analysis applying this criterion examined whether the share of adverse effects
 experienced by minority populations or low-income populations is greater than the share
 of minority populations or low-income populations in the reference community. If the
 share is greater, then the adverse effects would "disproportionately affect" minority
 populations or low-income populations.

Determinations of disproportionately high and adverse effects also consider direct mitigation (e.g., mitigation that would directly reduce an adverse effect) and offsetting mitigation (e.g., certain identified community improvements that would help to offset disproportionately high and adverse effects) that would be implemented, as well as all offsetting project benefits to the minority populations and low-income populations. Whether adverse effects would be disproportionately high and adverse includes the consideration of the totality of the circumstances, including:

- The location of an adverse effect in relation to minority populations and low-income populations
- The percentage of the minority populations and low-income populations in the environmental justice RSA as compared to the percentage of the minority populations and low-income populations in the reference community
- The perceptions of the minority populations and low-income populations regarding the severity of the adverse effect and the success of the proposed mitigation measures in reducing the effect
- Whether mitigation measures applied to avoid, minimize, reduce, or compensate for adverse
 effects would do so equally for both minority populations and low-income populations and
 non-minority populations and non-low-income populations
- The project benefits that would be received by minority populations and low-income populations
- Any social, religious, or cultural resources and public services such as police, fire, and emergency services particularly important to the minority populations and low-income populations that would be affected

5.3.2.4 Environmental Justice Engagement

USEO 12898 requires that federal agencies employ effective public participation and provide access to information. Consequently, a key component of compliance with USEO 12898 is outreach to potentially affected minority populations and low-income populations. The Authority has conducted specific outreach efforts to existing environmental justice outreach programs and established minority organizations throughout the EIR/EIS process. Outreach efforts to date are documented in Appendix 5-B. The environmental justice outreach team has contacted existing environmental justice outreach programs (e.g., Asian Americans for Community Involvement,



TransForm) and established community groups (e.g., Gilroy Community & Neighborhood Revitalization Committee, and the Seven Trees, Gardner, Goodyear-Mastic, and Alma neighborhood associations).

Special outreach included translation of open house meeting flyers into Spanish and Vietnamese; placement of meeting notifications in Spanish-, Vietnamese-, and Chinese-language newspapers; provision of meeting handouts in Spanish; and the presence of Spanish-speaking interpreters at public information meetings throughout the project extent and Vietnamese-speaking interpreters at public information meetings in San Jose. The environmental justice outreach team also conferred with local elected officials in each community on needs for interpretation in other languages in addition to Spanish and Vietnamese. Where minority populations or low-income populations could be affected by the project alternatives, outreach activities were conducted to determine the best ways of communicating with the affected populations. The environmental justice outreach team obtained feedback from environmental justice organizations, community leaders, and community members during community events.

The purpose of these outreach efforts was to provide opportunities for meaningful participation and input into the project design, identification of disproportionately high and adverse effects, and development of mitigation (both direct mitigation and offsetting mitigation). This input informs the following:

- Consideration of adverse effects and mitigation—Affected minority populations and lowincome populations were included in discussions of potential adverse effects and benefits to
 obtain input on the community's perception of these effects and associated mitigation. The
 environmental justice outreach team obtained community input on potential design
 modifications or variations to the project that would avoid or minimize adverse effects.
- Balancing adverse and beneficial effects—The environmental justice outreach team engaged minority populations and low-income populations to provide insight into their perception of adverse and beneficial effects. This input was critical in the determination of disproportionately high and adverse effects, which are the net results after consideration of the totality of the circumstances.
- Identifying disproportionately high adverse effects—The environmental justice outreach team
 engaged affected minority populations and low-income populations in discussions to help
 identify whether the project alternatives would result in disproportionately high and adverse
 effects, identify their priorities and needs, and to obtain insight into the types of mitigation that
 may reduce the severity of the effect.
- Identifying potential community improvements—The environmental justice outreach team
 engaged adversely affected minority populations and low-income populations in discussions
 to help identify and assess the value of potential community improvements that could provide
 local benefits to help offset residual disproportionately high and adverse effects.

A summary of this outreach is provided in Section 5.5, Environmental Justice Engagement.

5.4 Affected Environment

This section provides overall demographic information for the reference community and environmental justice RSA, and a more detailed presentation showing the distribution of minority populations, low-income populations, and other sensitive populations in the reference community and RSA. Although station and maintenance facilities are included in the environmental justice RSA, demographics for the RSA associated with these project components are also summarized separately.

5.4.1 Overview

The reference community consists of Santa Clara, San Benito, and Merced Counties, while the RSA is comprised of a subset of these counties that includes portions of Santa Clara, San Jose, Morgan Hill, San Martin, Gilroy, Santa Nella, Volta, and Los Banos. Table 5-1 provides an overview of the demographic characteristics of the reference community and RSA. The RSA is



about 40 percent of the size of the reference community and contains 20 percent of the reference community's population. A greater percentage of the RSA's population is low-income, with lower median household incomes and a higher unemployment rate than the reference community (Table 5-1). Both the reference community and the RSA are racially and ethnically diverse. Minority representation and linguistic isolation within the RSA is slightly greater than that of the reference community. The demographics of the reference community and resource study area are discussed in more detail by county and subsection, respectively, in the following sections.

Table 5-1 Overview of Reference Community and Resource Study Area Demographic Characteristics (2014 Estimates)

Characteristic	Reference Community ¹	Resource Study Area ¹
Area (square miles)	4,614	1,850
Total population	2,160,066	415,628
Population density (persons per square mile)	468	225
Total households	708,351	135,432
Percent of population low-income ²	23.3	29.8*
Median household income	\$87,740	\$78,340
Percent of population minority	63.4	63.8*
Percent of population over 65	10.2	9.6
Percent of population with disability status ³	8.7	8.3
Percent linguistic isolated households	11.5	11.4
Percent of population unemployed	9.9	10.7*

Sources: U.S. Census Bureau 2010; U.S. Census Bureau ACS 2010–2014a, 2010–2014b, 2010–2014c, 2010–2014d, 2010–2014f, 2010–2014f, 2010–2014h

5.4.1.1 Reference Community

Table 5-2 shows demographic information for the reference community, consisting of Santa Clara, San Benito, and Merced Counties; an area of 4,614 square miles (U.S. Census Bureau 2010). By comparison, the table also shows demographic information for each of the three counties. Merced County is the largest county in the reference community, while Santa Clara County is the most populous, with 85 percent of the reference community's population. The population density of Santa Clara County is 10 times greater than that of Merced County and almost 35 times greater than that of San Benito County (U.S. Census Bureau 2010; U.S. Census Bureau ACS 2010–2014a).

¹ Reference community and resource study area data were calculated through summation (e.g., area, total population, total households), or a weighted average based on the size, population, or households within each county or subsection (e.g., population density, percent low-income, median household income, percent minority).

² For San Benito and Merced Counties, low-income is defined using the U.S. Census poverty thresholds. For Santa Clara County, consistent with the Metropolitan Transportation Commission's approach, low-income is defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.

³ Per U.S. Census Bureau data, this is the percent of population with a disability who are over the age of 5.

Note: Values **bolded with an asterisk** (*) identify demographic characteristics for the resource study area that exceed that of the reference community.



Table 5-2 Reference Community Demographic Characteristics (2014 Estimates)

Characteristic	Santa Clara County	San Benito County	Merced County	Reference Community ¹
Area (square miles)	1,290	1,389	1,935	4,614
Total population	1,841,569	56,888	261,609	2,160,066
Population density (persons per square mile)	1,381	40	132	468
Total households	614,714	17,121	76,516	708,351
Percent of population low-income ²	23.3	12.1	25.6	23.3
Median household income	\$93,854	\$67,874	\$43,066	\$87,740
Percent of population minority	62.8	60.8	67.8	63.4
Percent of population over 65	11.7	10.5	10.0	10.2
Percent of population with disability status ³	7.7	8.8	15.7	8.7
Percent linguistic isolated households	11.3	9.2	13.2	11.5
Percent of population unemployed	8.8	14.0	17.5	9.9

Sources: U.S. Census Bureau 2010; U.S. Census Bureau ACS 2010–2014a, 2010–2014b, 2010–2014c, 2010–2014d, 2010–2014e, 2010–2014f, 2010–2014f, 2010–2014h

The reference community comprises a wide range of physical and economic conditions. The percentage of low-income individuals within the reference community is 23.3 percent, and in 2014, median household incomes ranged from a low of \$43,066 in Merced County to a high of \$93,854 in Santa Clara County (U.S. Census Bureau ACS 2010–2014b, 2010–2014c). Santa Clara County, which has the highest median incomes and lowest unemployment rate within the reference community, is home to Silicon Valley technology firms, a highly educated workforce, and substantial venture capital investment in entrepreneurial activities. These activities are largely concentrated in the northern and central areas of the county, as the southern end is more characterized by lower density development—including housing for the Silicon Valley workforce—and agricultural activity. San Benito County has been part of the Silicon Valley commute shed for the past few decades, but the substantial areas of agricultural and open space, as well as limited accessibility from major transportation corridors, has limited the county's population and economic growth in recent years. Merced County has an agricultural economy, and levels of employment and income have historically lagged behind those in other parts of the state because of the seasonal nature of agricultural employment and slower growth in nonagricultural sectors.

The reference community is racially and ethnically diverse. In 2014, minority individuals made up 63.4 percent of the population, compared to 61 percent for California (U.S. Census Bureau ACS 2010–2014d). The racial and ethnic makeup of the reference community varies by geography—Asians are the largest minority group in Santa Clara County (33 percent), while Hispanics and Latinos are the largest minority group in San Benito and Merced Counties (57 and 56 percent, respectively).

In addition to minority populations and low-income populations, this environmental justice analysis also examines other sensitive populations, such as elderly, disabled, or linguistically isolated populations, who may have special needs. The elderly population (65 years and older) was comparable in the three counties at 10.2 percent in 2014 (Census Bureau 2010–2014a). Approximately 8.7 percent of the reference community population is disabled, with the highest

¹ Reference community data was calculated through summation (e.g., area, total population, total households), or a weighted average based on the size, population, or households within each county (e.g., population density, percent low-income, median household income, percent minority). 2 For San Benito and Merced Counties, low-income is defined using the U.S. Census poverty thresholds For Santa Clara County, consistent with the Metropolitan Transportation Commission's approach, low-income is defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.

³ Per U.S. Census Bureau data, this is the percent of population with a disability who are over the age of 5.



rates of disability in Merced County (15.7 percent) (U.S. Census ACS 2010–2014e). Approximately 11.5 percent of households in the reference community were linguistically isolated (U.S. Census Bureau ACS 2010–2014f). In addition, 9.9 percent of the reference community population was unemployed in 2014, with unemployment rates of 8.8 percent in Santa Clara County, 14.0 percent in San Benito County, and 17.5 percent in Merced County (U.S. Census Bureau ACS 2010–2014g).

5.4.1.2 Resource Study Area

The environmental justice RSA is organized by subsection, and extends through unincorporated Santa Clara, San Benito, and Merced Counties, and portions of Santa Clara, San Jose, Morgan Hill, San Martin, Gilroy, Santa Nella, Volta, and Los Banos. Table 5-3 shows the cities and communities by subsection. The city of San Jose extends through two subsections.

Table 5-3 Cities/Communities within the Resource Study Area

Subsection	City/Community in the RSA
San Jose Diridon Station Approach	Santa Clara and San Jose
Monterey Corridor	San Jose and Unincorporated Santa Clara County
Morgan Hill and Gilroy	San Jose, Morgan Hill, San Martin, Gilroy, unincorporated Santa Clara and San Benito Counties
Pacheco Pass	Unincorporated Santa Clara and Merced Counties
San Joaquin Valley	Unincorporated Merced County, Santa Nella, Volta, Los Banos

RSA = resource study area

Table 5-4 shows demographic characteristics of the environmental justice RSA based on census data collected between 2010 and 2014. The environmental justice RSA has a total population of 415,628, primarily concentrated in San Jose, Morgan Hill, and Gilroy in the San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections (U.S. Census Bureau ACS 2010–2014a).

Table 5-4 Resource Study Area Demographic Characteristics (2014 Estimates)

RSA Characteristics	San Jose Diridon Station Approach	Monterey Corridor	Morgan Hill and Gilroy	Pacheco Pass	San Joaquin Valley	RSA Totals¹
Area (square miles)	16.9	25.0	887.8	1,406.5	920.6	1,850.3
Total population	104,917	153,836	118,906	12,636	37,969	415,628
Population density (persons per square mile)	6,204*	6,152*	134	9	41	225
Total households	39,671	48,586	36,320	4,189	10,855	135,432
Percent of population low-income ²	35.5*	28.8*	28.2*	25.3*	23.6*	29.8*
Median household income	\$73,609	\$82,944	\$87,640	\$43,887	\$43,906	\$78,340
Percent of population minority	59.5	70.8*	56.5	57.4	72.4*	63.8*
Percent of population over 65 years old	8.7	9.9	10.5*	10.0	8.2	9.6
Percent of population with disability status ³	8.1	8.4	8.2	10.7*	8.9*	8.3



RSA Characteristics	San Jose Diridon Station Approach	Monterey Corridor	Morgan Hill and Gilroy	Pacheco Pass	San Joaquin Valley	RSA Totals¹
Percent linguistically isolated households	11.8*	13.1*	6.4	20.4*	19.6*	11.4
Percent of population unemployed	9.5	10.2*	10.6*	20.4*	17.3*	10.7*

Sources: U.S. Census Bureau 2010; U.S. Census Bureau ACS 2010–2014a, 2010–2014b, 2010–2014c, 2010–2014d, 2010–2014e, 2010–2014f, 2010–2014h

Note: Values **bolded with an asterisk (*)** identify resource study area demographic characteristics that exceed those of the reference community. RSA = resource study area

Compared to the reference community, the environmental justice RSA has a higher percentage of low-income individuals (29.8 percent low-income), compared to 23.3 percent of the reference community (U.S. Census Bureau ACS 2010–2014b). Median household incomes within the environmental justice RSA are \$9,400 less than the median household incomes for the reference community (U.S. Census Bureau ACS 2010–2014c). The San Jose Diridon Station Approach Subsection has the highest percentage of low-income individuals (35.5 percent low-income), followed by the Monterey Corridor Subsection (28.8 percent low-income) and the Morgan Hill and Gilroy Subsection (28.2 percent low-income).

The minority populations in the environmental justice RSA (63.8 percent minority), are comparable to the 63.4 percent minority for the reference community as a whole (U.S. Census Bureau ACS 2010–2014d). Within the project extent, the greatest concentration of minority populations occurs in the Monterey Corridor and San Joaquin Valley Subsections, which are 70.8 and 72.4 percent minority, respectively.

The percentages of other sensitive populations, including elderly, disabled, or linguistically isolated populations within the environmental justice RSA is comparable to that of the reference community. Notable exceptions are the high rates of linguistic isolation and unemployment in the Pacheco Pass and San Joaquin Valley Subsections, which are almost twice the reference community's 11.5 percent linguistic isolation and 9.9 percent unemployment (U.S. Census Bureau ACS 2010–2014f, 2010–2014g).

Table 5-5 shows an overview of demographic characteristics of the RSA for the station location and maintenance facility options based on census data collected between 2010 and 2014. The San Jose Diridon Station and the Downtown Gilroy Station are located in urban areas, while the East Gilroy Station, South Gilroy and East Gilroy maintenance of way facility (MOWF), and maintenance of way siding (MOWS) are located in predominantly rural agricultural areas. With the exception of the MOWS in Merced County, the stations and maintenance facilities are located in areas with higher percentages of low-income individuals than the reference community (23.3) percent low-income). The greatest concentrations of low-income populations occur in east Gilroy—at the location of the East Gilroy Station (58.5 percent low-income) and the Downtown Gilroy Station (47.3 percent low-income) (U.S. Census Bureau ACS 2010–2014b). The greatest concentrations of minority populations occur within the RSAs for the Downtown Gilroy (73.3 percent minority) and East Gilroy Stations (81.1 percent minority), which exceed the 63.4 percent minority population of the reference community (U.S. Census Bureau ACS 2010-2014d). The MOWS RSA has the highest rates of linguistic isolation (25.3 percent, which is twice that of the reference community) and unemployment (15 percent, which is approximately 5 percent higher than the reference community) (U.S. Census Bureau ACS 2010–2014f, 2010–2014g).

¹ RSA data was calculated through summation (e.g., area, total population, total households), or a weighted average based on the size, population, or households within each subsection (e.g., population density, percent low-income, median household income, percent minority). Census tracts split by a particular subsection were included in the estimate for each subsection.

² For San Benito and Merced Counties, low-income is defined using the U.S. Census poverty thresholds. For Santa Clara County, consistent with the Metropolitan Transportation Commission's approach, low-income is defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.

³ Per U.S. Census Bureau data, this is the percent of population with a disability who are over the age of 5.



Table 5-5 Station and Maintenance Facility Resource Study Area Demographic Characteristics (2014 Estimates)

	0	Gilroy Statio	n Options	M	OWF Optio	ns	
RSA Characteristics ¹	San Jose Diridon Station	Downtown Gilroy	East Gilroy	South Gilroy Alt 1/2	South Gilroy Alt 4	East Gilroy Alt 3	MOWS
Area (square miles)	4.6	42.0	38.4	37.5	190.4	37.5	578.0
Total population	33,012	24,058	7,588	2,651	8,095	2,651	3,589
Population density (persons per square mile)	7,224.4*	573.0*	197.7	70.7	42.5	70.7	6.2
Total households	12,728	6,820	1,966	805	2,385	805	1,260
Percent of population low- income ²	32.7*	47.3*	58.5*	40.2*	31.7*	40.2*	23.2
Median household income	\$82,827	\$62,027	\$47,203	\$64,375	\$73,967	\$64,375	\$40,593
Percent of population minority	60.0	73.3*	81.1*	66.2	53.5	66.2	59.3
Percent of population over 65 years old	7.8	9.7	10.2	10.7*	11.1*	10.7*	6.3
Percent of population with disability status ³	7.2	9.8*	12.4*	13.2*	10.0*	13.2*	7.0
Percent linguistically isolated households	10.7	12.7*	17.0*	15.8*	7.2	15.8*	25.3*
Percent of population unemployed	10.4*	11.7*	13.3*	14.7*	13.8*	14.7*	15.0*

Sources: U.S. Census Bureau 2010; U.S. Census Bureau ACS 2010–2014a, 2010–2014b, 2010–2014c, 2010–2014d, 2010–2014e, 2010–2014f, 2010–2014f, 2010–2014h

Values **bolded with an asterisk** (*) identify resource study area demographic characteristics that exceed those of the reference community. Alt = Alternative

MOWF = maintenance of way facility

MOWS = maintenance of way siding

RSA = resource study area

5.4.2 Low-Income Populations

5.4.2.1 Reference Community

Table 5-6 shows the low-income populations within the reference community by county. The median household income for the reference community is \$87,740, which is approximately \$26,250 higher the median household income for California (U.S. Census Bureau ACS 2010–2014c). However, household incomes vary widely by county, from a high of \$93,854 in Santa Clara County to a low of \$43,066 in Merced County. Approximately 23.3 percent of individuals within the reference community were identified as low-income in 2014, which is higher than California as a whole, where low-income individuals made up 16.4 percent of the total population (U.S. Census Bureau ACS 2010–2014b). The percentages of low-income individuals were similar in Merced County (25.6 percent) and Santa Clara County (23.3 percent), and substantially lower in San Benito County (12.1 percent).

¹ RSA data was calculated through summation (e.g., area, total population, total households), or a weighted average based on the size, population, or households within census tract (e.g., population density, percent low-income, median household income, percent minority).

² For San Benito and Merced Counties, low-income is defined using the U.S. Census poverty thresholds. For Santa Clara County, consistent with the Metropolitan Transportation Commission's approach, low-income is defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.

³ Per U.S. Census Bureau data, this is the percent of population with a disability who are over the age of 5.



Table 5-6 Low-Income Populations within the Reference Community (2014 Estimates)

Geographic Area	Population (2014)	Median Household Income	Estimated Percent Low- Income (2014) ¹
Santa Clara County	1,841,569	\$93,854	23.3
San Benito County	56,888	\$43,066	12.1
Merced County	261,609	\$67,874	25.6
Reference community ²	2,160,066	\$87,740	23.3

Sources: U.S. Census Bureau ACS 2010-2014b, 2010-2014c

5.4.2.2 Resource Study Area

Table 5-7 shows the household incomes and low-income populations within the environmental justice RSA by subsection and by city and community. Approximately 29.8 percent of individuals within the environmental justice RSA in 2014 were low-income (6.5 percent more than the reference community), and the median household income was \$78,340 (\$9,400 less than the reference community) (U.S. Census Bureau ACS 2010–2014b, 2010–2014c). The environmental justice RSA within the cities of Santa Clara, Gilroy, and downtown San Jose (within the San Jose Diridon Approach Subsection) had the highest percentages of low-income populations—40.1, 40.8 and 34.5 percent, respectively (U.S. Census Bureau ACS 2010–2014b). The lowest percentage of low-income populations were within unincorporated San Benito County (10.8 percent), unincorporated Santa Clara County in the Pacheco Pass Subsection (11.7 percent), and within the community of San Martin (16.9 percent). The median household income of \$112,608 in San Martin was the highest of the cities and communities within the environmental justice RSA.

Table 5-7 Household Incomes and Low-Income Populations within the Resource Study Area (2014 Estimates)¹

Subsection and City/Community within RSA	Population	Median Household Income	Estimated Percentage Low- Income ²
San Jose Diridon Station Approach	104,718	\$73,610*	35.5*
Santa Clara	20,453	\$65,507*	40.1*
San Jose	84,265	\$75,338*	34.5*
Monterey Corridor	153,737	\$82,937*	28.8*
San Jose	145,491	\$83,378*	28.6*
Unincorporated Santa Clara County	8,247	\$74,747*	32.7*
Morgan Hill and Gilroy	118,582	\$87,614*	28.2*
San Jose	4,676	\$89,071	19.2
Morgan Hill	26,697	\$87,197*	26.0*
San Martin	3,918	\$112,608	16.9
Gilroy	37,759	\$71,611*	40.8*

¹ For San Benito and Merced Counties, low-income is defined using the U.S. Census poverty thresholds. For Santa Clara County, consistent with the Metropolitan Transportation Commission's approach, low-income is defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.

² Reference community population data was calculated through summation, while the median household income and percent low-income were calculated through a weighted average based on the population or households within each county.



Subsection and City/Community within RSA	Population	Median Household Income	Estimated Percentage Low- Income ²
Unincorporated Santa Clara County	40,088	\$100,095	22.5
Unincorporated San Benito County	5,444	\$78,854*	10.8
Pacheco Pass	12,616	\$43,804*	24.8*
Unincorporated Santa Clara County	934	\$93,958	11.7
Unincorporated Merced County ³	11,682	\$39,675*	25.7*
San Joaquin Valley	37,969	\$43,906*	23.6*
Los Banos	7,602	\$47,214*	22.8
Unincorporated Merced County ³	30,367	\$43,171*	23.8*
RSA Totals	415,628	\$78,340*	29.8*

Sources: U.S. Census Bureau ACS 2010-2014b. 2010-2014c

RSA = resource study area

Table 5-8 shows 2010–2014 ACS 5-Year Estimates for households that received SNAP assistance during the previous 12 months. SNAP is the major national income support program to which all low-income and low-resource households, regardless of household characteristics, are eligible. Within the environmental justice RSA, approximately 8.1 percent of households received SNAP assistance in 2014, compared to 9 percent of households in California during the same year. Los Banos had the highest percentage of households receiving SNAP assistance (18.4 percent) followed by Gilroy (13.9 percent), while San Martin had the lowest percentage of households receiving SNAP assistance (3.1 percent) (U.S. Census Bureau ACS 2010–2014i).

Table 5-8 Percentage of Households Participating in the Supplemental Nutrition Assistance Program within the Resource Study Area (2014 Estimates)

Subsection and City/Community within RSA	Percent Households Receiving SNAP ¹
San Jose Diridon Station Approach	5.7
Santa Clara	5.4
San Jose	5.8
Monterey Corridor	8.3
San Jose	8.2
Unincorporated Santa Clara County	11.0

¹ Resource study area data were calculated through summation (e.g., population), or a weighted average based on the size, population, or households within each subsection (e.g., percent low-income, median household income). Census tracts split by a particular subsection were included in the estimate for each subsection.

² For San Benito and Merced Counties, low-income is defined using the U.S. Census poverty thresholds. For Santa Clara County, consistent with the Metropolitan Transportation Commission's approach, low-income is defined as persons with household incomes at or below 200 percent of the U.S. Census poverty thresholds.

³ Unincorporated Merced County includes Santa Nella in the Pacheco Pass Subsection and Volta in the San Joaquin Subsection.

Values **bolded with an asterisk** (*) identify resource study area demographic characteristics that exceed those of the reference community (e.g., if the median household income is less than the reference community or if the estimated percentage low-income is higher than the reference community).



Subsection and City/Community within RSA	Percent Households Receiving SNAP ¹
Morgan Hill and Gilroy	7.9
San Jose	5.0
Morgan Hill	6.1
San Martin	3.1
Gilroy	13.9
Unincorporated Santa Clara County	5.3
Unincorporated San Benito County	3.3
Pacheco Pass	11.7
Unincorporated Santa Clara County	9.8
Unincorporated Merced County	11.8
San Joaquin Valley	15.4
Los Banos	18.4
Unincorporated Merced County	14.7
RSA	8.1

Source: U.S. Census Bureau ACS 2010-2014i

Figure 5-3 through Figure 5-7 illustrate the concentrations of low-income individuals within the environmental justice RSA. As shown on the figures, the highest percentages of low-income populations are located in Santa Clara County, and in the Santa Clara, San Jose, Morgan Hill and Gilroy communities. The percentages of low-income populations in these communities are greater than in the reference community as a whole. Low-income populations in the Pacheco Pass (25.3 percent) and San Joaquin Valley (23.6 percent) are comparable to the reference community as a whole. Further detail regarding the locations of these populations is described by subsection.

San Jose Diridon Station Approach Subsection

The environmental justice RSA within Santa Clara is 40.1 percent low-income, which is approximately 17 percent higher than that of the reference community. In the industrial land uses north of the existing Caltrain tracks and bounded by U.S. Highway (US) 101 to the north and the Norman Y. Mineta International Airport to the east, the population is 39 percent low-income. Residential areas south of the existing Caltrain tracks have low-income populations ranging from 39.5 to 49.9 percent. In this area, Homesafe Santa Clara, which is managed by Charities Housing, provides 24 units of subsidized, affordable housing and on-site childcare for very low-income survivors of domestic abuse and their children.

The environmental justice RSA within San Jose is 34.5 percent low-income, which is 11 percent higher than that of the reference community (23.3 percent low-income). The RSA for the San Jose Diridon Station Approach is 35.5 percent low-income. The highest rates of low-income populations in the environmental justice RSA occur east of the intersection of Interstate (I-) 280 and State Route (SR) 87 where the neighborhoods of Market/Almaden, Washington/Guadalupe, and Tamien are located; these neighborhoods are approximately 56 percent low-income. The Gardner and Auzerais/Josefa neighborhoods are approximately 26 percent and 37 percent low-income, respectively.

¹ The percent households receiving SNAP in the resource study area and the subsections of the resources study area were calculated using a weighted average based on the number of households in each census tract

RSA = resource study area

SNAP = Supplemental Nutrition Assistance Program



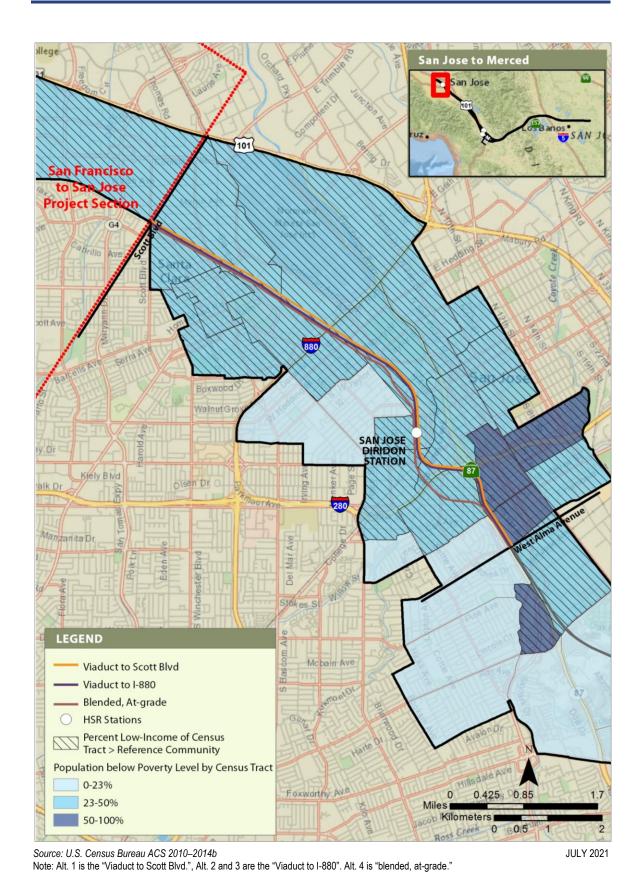
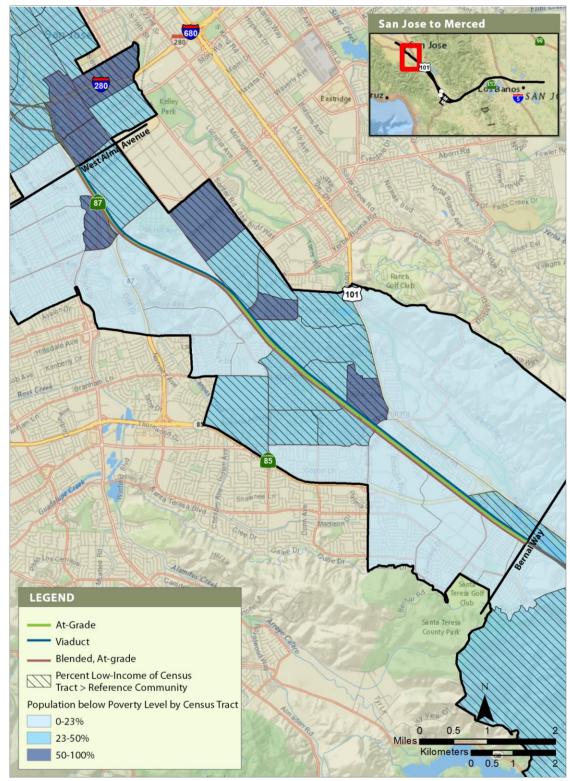


Figure 5-3 Low-Income Populations in the Resource Study Area (Part 1 of 5)

California High-Speed Rail Authority

February 2022



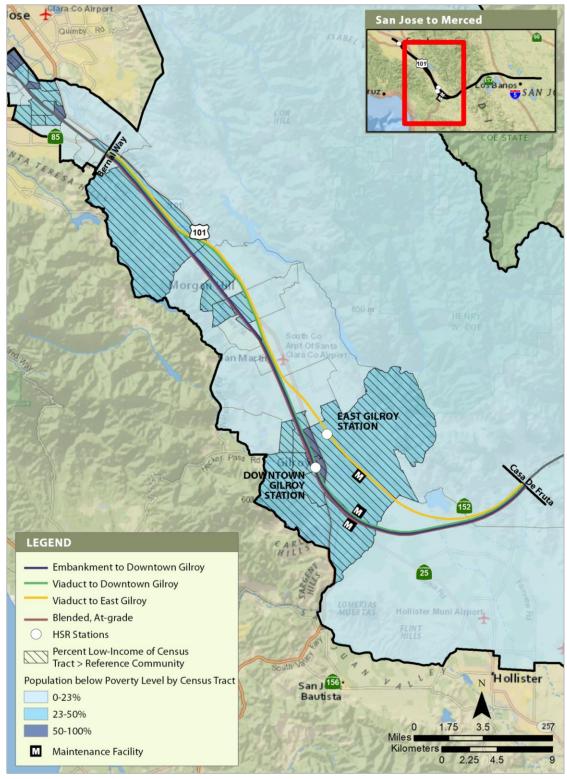


Source: U.S. Census Bureau ACS 2010-2014b

JULY 2021

Note: Alt. 1 and 3 alignments shown by "Viaduct", Alt. 2 alignment is shown by "At-Grade" but is actually on an embankment. Alt. 4 alignment shown by "blended, at-grade" and is at the same elevation as existing tracks.

Figure 5-4 Low-Income Populations in the Resource Study Area (Part 2 of 5)



Source: U.S. Census Bureau ACS 2010–2014b

JULY 2021

Note: Alt. 1 is the "Viaduct to Downtown Gilroy", Alt. 2. Is the "Embankment to Downtown Gilroy", Alt. 3 is the "Viaduct to East Gilroy". Alt. 4 is "blended, at-grade" and follows the same general alignment as the "Embankment to Downtown Gilroy"

Figure 5-5 Low-Income Populations in the Resource Study Area (Part 3 of 5)



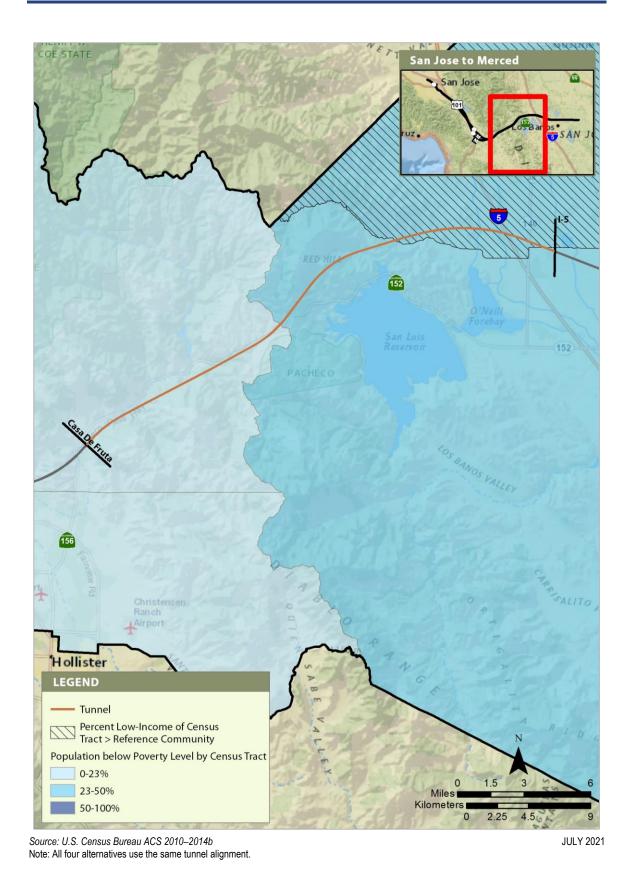


Figure 5-6 Low-Income Populations in the Resource Study Area (Part 4 of 5)

February 2022

California High-Speed Rail Authority



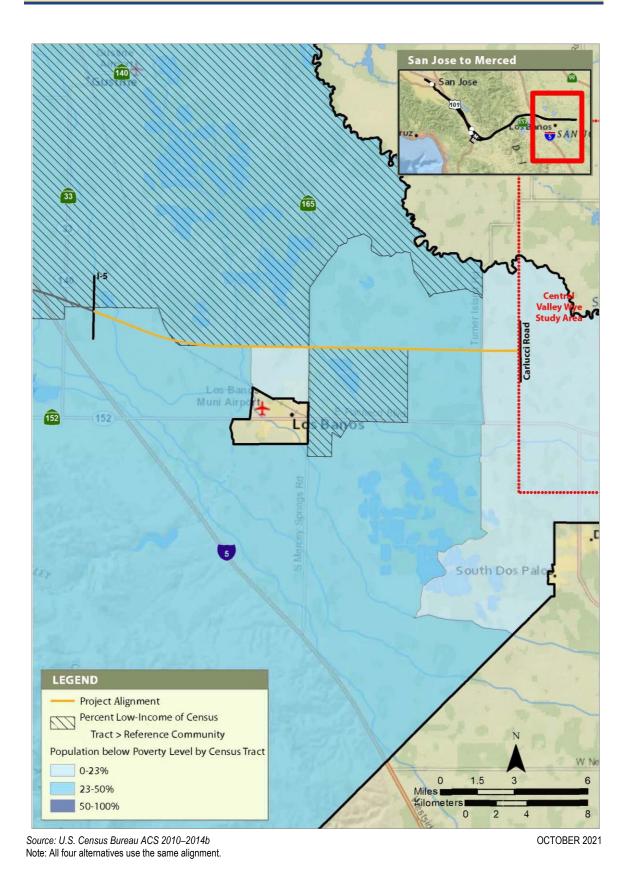


Figure 5-7 Low-Income Populations in the Resource Study Area (Part 5 of 5)



Monterey Corridor Subsection

Within the Monterey Corridor Subsection, the environmental justice RSA is 28.8 percent low-income, 5.5 percent higher than the reference community, and is located within San Jose and unincorporated Santa Clara County. The greatest concentrations of low-income populations occur in the Guadalupe/Almaden, Almaden/Clara Filice, Evans, and Guadalupe Canoas neighborhoods west of SR 87 between Almaden Road and Curtner Avenue (52 percent low-income); the Seven Trees neighborhood northeast of the intersection of Senter Road and Monterey Road (53 percent low-income); and the Edenvale neighborhood northeast of the intersection of Blossom Hill Road and Monterey Road (58 percent low-income).

Morgan Hill and Gilroy Subsection

Within the Morgan Hill and Gilroy Subsection, the greatest concentrations of low-income populations occur in Gilroy, which is 40.8 percent low-income—the highest of any city or community within the environmental justice RSA—and is more than 17 percent higher than the reference community. The low-income populations in downtown Gilroy between US 101 and Monterey Road, range between 61 and 69 percent low-income, while east and west of downtown Gilroy, low-income populations range from 35 to 40 percent low-income. As shown on Figure 5-5, the rural unincorporated lands in Santa Clara County north of Morgan Hill and east of Gilroy also have high concentrations of low-income populations, with approximately 33.9 percent low-income. Morgan Hill, with a low-income population of 26 percent is higher than the reference community, while San Martin's low-income population of 17 percent is less than that of the reference community.

The population within the RSA for the Downtown Gilroy Station is 47.3 percent low-income, while the population within the RSA for the East Gilroy Station is 58.5 percent low-income, which is more than twice that of the reference community (23.3 percent low-income). The greatest concentration of low-income populations within these station RSAs occurs north of the proposed Downtown Gilroy Station and west of the proposed East Gilroy Station between W Las Animas Avenue and Lewis Street, where the population is nearly 69 percent low-income.

The population within the RSA for the East Gilroy MOWF under Alternative 3 is 40.2 percent low-income, while the population within the RSA for the South Gilroy MOWF is 40.2 percent low-income under Alternatives 1 and 2, and 31.7 percent low-income under Alternative 4. All three maintenance facility locations have low-income populations that are greater than the reference community (23.3 percent low-income).

Community resources that provide services to low-income populations within the Morgan Hill and Gilroy Subsection include several large affordable housing and senior housing complexes in downtown Morgan Hill. In San Martin, the Boccardo Family Living Center provides affordable, transitional housing for homeless families with children in South Santa Clara County, an emergency shelter program for families, and seasonal migrant farmworker housing.

Pacheco Pass Subsection

Within the Pacheco Pass Subsection of the environmental justice RSA, low-income populations make up 24.8 percent of the population. This is 1.5 percent greater than of the reference community as a whole. Populations that are 26.8 percent low-income are located in the eastern portion of the Pacheco Pass Subsection in Merced County, north of SR 152 and west of I-5.

San Joaquin Valley Subsection

Similar to the Pacheco Pass Subsection, within the San Joaquin Valley Subsection of the environmental justice RSA low-income populations make up 23.6 percent of the population. This is comparable to the reference community as a whole. The population within the RSA for the MOWS is 23.2 percent low-income. Populations where the percent low-income exceeds the reference community are located east of Mercey Springs Road in Los Banos (23.8 percent low-income) and in unincorporated Merced County north of Volta (26.8 percent low-income).



5.4.3 Minority Populations

5.4.3.1 Reference Community

As shown in Table 5-9, the reference community is racially and ethnically diverse. In 2014, minority individuals made up between approximately 61 and 68 percent of the three counties' populations. As a whole, 63.4 percent of the reference community's population are minority, compared to 61 percent for the state of California (U.S. Census Bureau ACS 2010–2014d). The racial and ethnic makeup of the reference community varied by county. Asians were the largest minority group in Santa Clara County (32.9 percent) in 2014, while Hispanics or Latinos were the largest ethnic group in San Benito and Merced Counties (57.4 and 56.3 percent of the population, respectively).

Table 5-9 Minority Group Representation in the Reference Community (2014 Estimates)

	Percent Population							
			Non-Hispanic or Latino					
Geographic Area	Hispanic or Latino	Black	Native American/ Hawaiian/Pacific Black Asian Islander Other					
Santa Clara County	26.7	2.4	32.9	0.3	0.2	62.8		
San Benito County	57.4	0.8	1.9	0.1	0.0	60.8		
Merced County	56.3	3.3	7.4	0.2	0.2	67.8		
Reference community ¹	31.1	2.5	29.0	0.3	0.2	63.4		

Source: U.S. Census Bureau ACS 2010-2014d

5.4.3.2 Resource Study Area

Table 5-10 shows the minority group representation within the environmental justice RSA by subsection and by city and community. As a whole, the environmental justice RSA is 63.8 percent minority, with the largest minority groups being Hispanic or Latino (43.6 percent) and Asian (16.0 percent) (U.S. Census Bureau ACS 2010–2014d). Figure 5-8 illustrates the distribution of minority groups within the environmental justice RSA and areas with the greatest concentrations of minority populations.

The greatest concentration of racial and ethnic minorities occurs in the Monterey Corridor and San Joaquin Valley Subsections, which are 70.8 percent and 72.4 percent minority, respectively, which is 7.4 to 9.0 percent higher than the reference community. For the cities and communities of the RSA, the highest percentages of minority representation occur in southern San Jose (70.4 percent), Gilroy (70.9 percent), and Los Banos (79.7 percent), which are higher than the reference community. Figure 5-9 through Figure 5-13 illustrate the percentage of minority populations within the environmental justice RSA.

San Jose Diridon Station Approach Subsection

The environmental justice RSA within this subsection is 59.5 percent minority, which is 3.9 percent less than that of the reference community. Minority representation is higher in downtown San Jose (60.7 percent minority) than in Santa Clara (54.8 percent minority), and the greatest concentrations of minority populations are located east of the intersection of I-280 and SR 87. In the Market/Almaden, Washington/Guadalupe, and Tamien neighborhoods, concentrations of minority populations range from 81 to 92 percent. The environmental justice RSA for the San Jose Diridon Station is 56.5 percent minority, comparable to that of the San Jose Diridon Station Approach Subsection RSA and just 2.1 percent less than the reference community.

Reference community percent minority data is a weighted average based on the population within each county.



Table 5-10 Minority Group Representation within the Resource Study Area (2014 Estimates)¹

	Percent Population					
		Non-Hispanic or Latino				
Subsection and City/Community within RSA	Hispanic or Latino	Black	Asian	Native American/ Hawaiian/Pacific Islander	Other	Total
San Jose Diridon Station Approach	38.3	4.1	16.5	0.6	0.03	59.5
Santa Clara	29.7	3.4	20.9	0.7	0.03	54.8
San Jose	40.4	4.3	15.4	0.6	0.02	60.7
Monterey Corridor	39.1	3.6	27.4	0.5	0.1	70.8*
San Jose	39.1	3.7	27.0	0.5	0.1	70.4*
Unincorporated Santa Clara County	40.3	1.9	34.7	0.6	0.3	77.8*
Morgan Hill and Gilroy	46.2	2.0	7.5	0.7	0.1	56.5
Morgan Hill	35.1	2.7	9.9	0.3	0.1	48.1
San Martin	36.8	0.8	9.4	3.2	0.1	50.2
Gilroy	63.6	1.9	4.7	0.6	0.0	70.9*
Unincorporated Santa Clara County	39.0	2.1	8.5	0.8	0.1	50.4
Unincorporated San Benito County	45.6	0.3	0.9	0.3	0.0	47.2
Pacheco Pass	55.4	0.7	1.1	0.2	0.0	57.4
Unincorporated Santa Clara County	23.3	1.3	1.7	0.7	0.0	26.9
Unincorporated Merced County	57.9	0.7	1.1	0.2	0.0	59.8
San Joaquin Valley	67.8	2.1	2.0	0.4	0.02	72.4*
Los Banos	73.5	3.0	2.7	0.5	0.0	79.7*
Unincorporated Merced County	66.4	1.9	1.9	0.4	0.02	70.6*
RSA Totals	43.6	3.1	16.2	0.6	0.1	63.8*

Source: U.S. Census Bureau ACS 2010-2014d

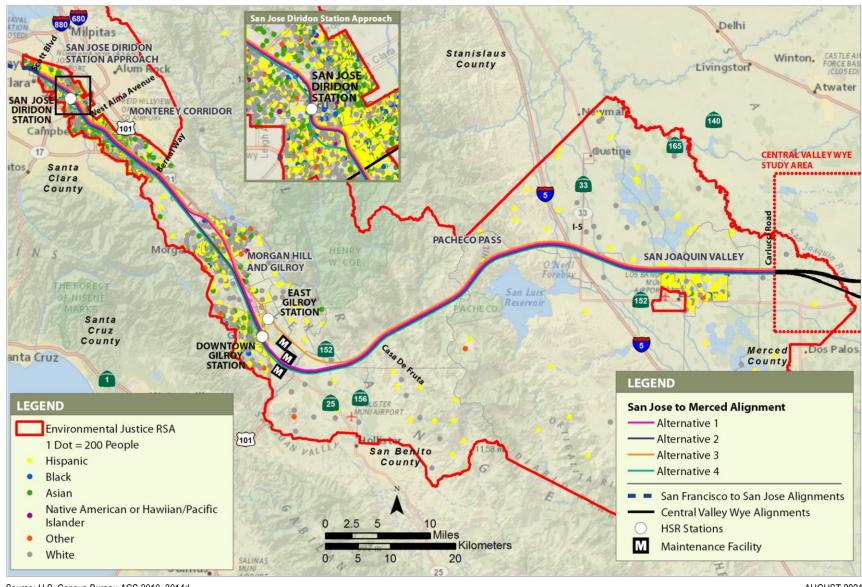
Monterey Corridor Subsection

Within this subsection, the environmental justice RSA is 70.8 percent minority, of which 39.1 percent are Hispanic or Latino and 27.4 percent are Asian. The highest concentrations of minority populations (up to greater than 90 percent minority) within this subsection are located adjacent to Monterey Road between Capitol Expressway and Blossom Hill Road (Figure 5-10). San Jose neighborhoods with minority populations greater than the reference community are Alma-Almaden, Monticello, Almaden/Clara Filice, and Evans adjacent to SR 87; the neighborhoods of Kenwood, Hillsdale, Rancho, Los Arboles, Seven Trees, San Ramon, Riverview, Danna Rock, Davis, Edenvale, Sunspring, and Silver Leaf east of Monterey Road; and the neighborhoods of the Woods, Berry Park, and Deer Run on the west side of Monterey Road. The Seven Trees and Los Arboles neighborhoods, bounded by Capitol Expressway and Senter Road, have between 92 and 97 percent minority populations.

¹ Resource study area data were calculated through a weighted average based on the population within each subsection.

Values **bolded with an asterisk (*)** identify resource study area demographic characteristics that exceed those of the reference community. RSA = resource study area



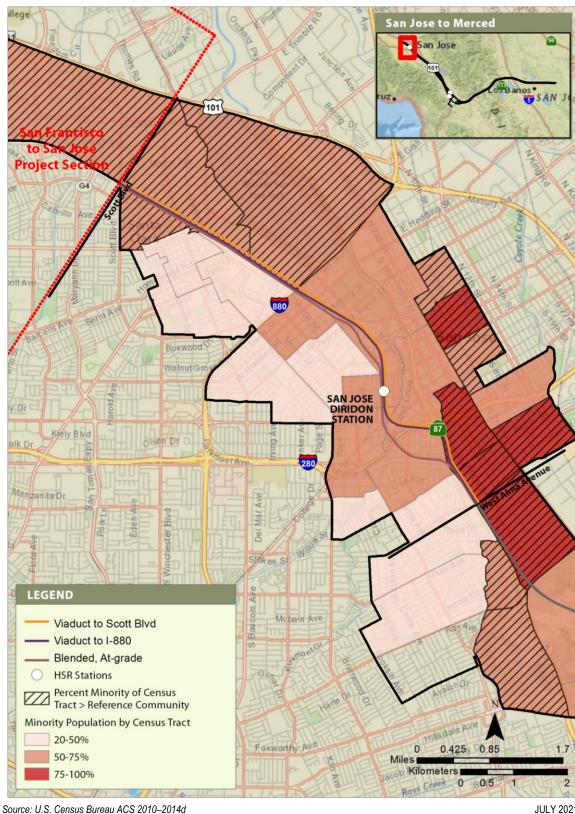


Source: U.S. Census Bureau ACS 2010-2014d

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Figure 5-8 Minority Population Distribution

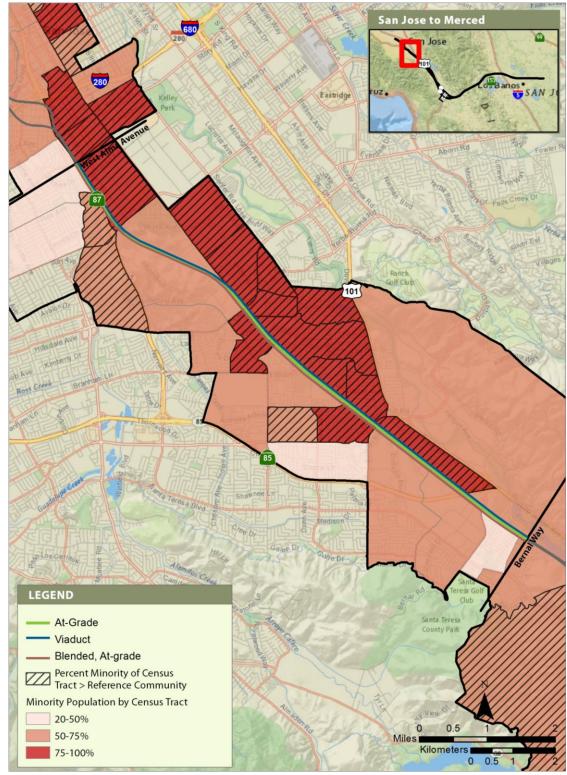




Note: Alt. 1 is the "Viaduct to Scott Blvd.", Alt. 2 and 3 are the "Viaduct to I-880". Alt. 4 is "blended, at-grade."

JULY 2021

Figure 5-9 Minority Populations in the Resource Study Area (Part 1 of 5)



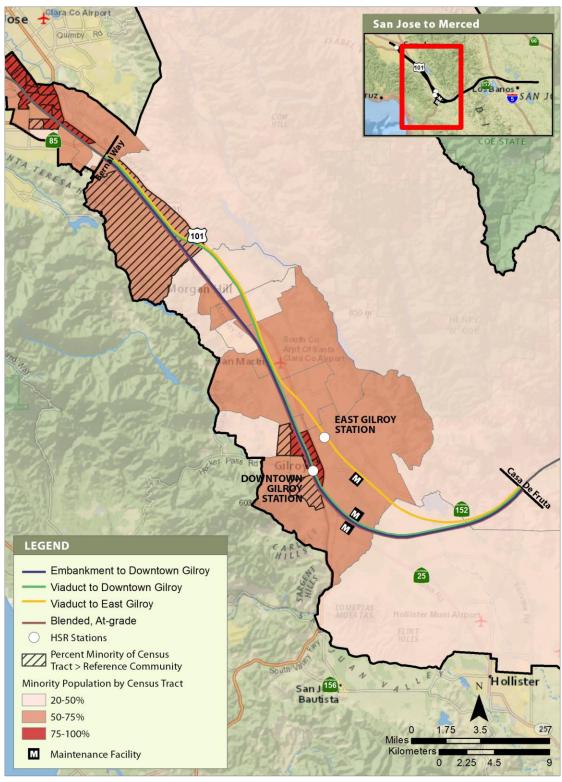
Source: U.S. Census Bureau ACS 2010–2014d

JULY 2021

Note: Alt. 1 and 3 alignments shown by "Viaduct", Alt. 2 alignment is shown by "At-Grade" but is actually on an embankment. Alt. 4 alignment shown by "blended, at-grade" and is at the same elevation as existing tracks.

Figure 5-10 Minority Populations in the Resource Study Area (Part 2 of 5)





Source: U.S. Census Bureau ACS 2010-2014d

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Note: Alt. 1 is the "Viaduct to Downtown Gilroy", Alt. 2. Is the "Embankment to Downtown Gilroy", Alt. 3 is the "Viaduct to East Gilroy". Alt. 4 is "blended, at-grade" and follows the same general alignment as the "Embankment to Downtown Gilroy"

Figure 5-11 Minority Populations in the Resource Study Area (Part 3 of 5)



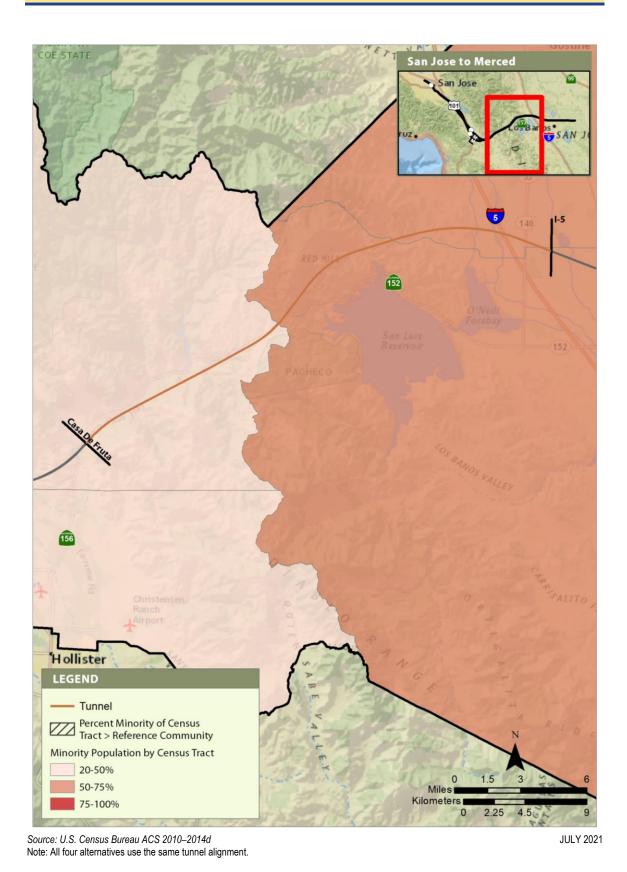


Figure 5-12 Minority Populations in the Resource Study Area (Part 4 of 5)

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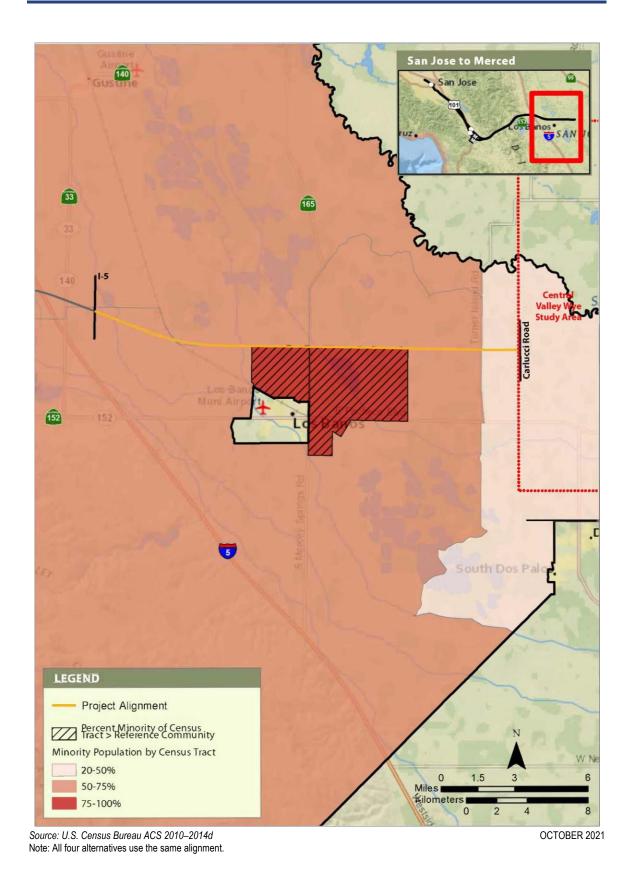


Figure 5-13 Minority Populations in the Resource Study Area (Part 5 of 5)



Morgan Hill and Gilroy Subsection

Within the Morgan Hill and Gilroy Subsection, the environmental justice RSA is 56.5 percent minority, which is 6.9 percent below the reference community as a whole. The cities and communities within the environmental justice RSA vary in minority representation—Morgan Hill has the lowest minority representation (48.1 percent), while Gilroy has the highest minority representation (70.9 percent). Downtown Gilroy, between US 101 and Monterey Road, has the highest percentages of minority representation (largely Hispanic or Latino), with census tracts ranging from 86 to 89 percent minority.

The population within the RSA for the Downtown Gilroy Station is 73.3 percent minority (8.1 percent greater than the reference community), while the population within the RSA for the East Gilroy Station is 81.1 percent minority (14.8 percent greater than the reference community). Compared to the other stations and maintenance facilities, the RSA for the East Gilroy Station has the highest percent minority population. The area with the highest minority representation within the station RSA is between W Las Animas Avenue and Lewis Street, which is 89 percent minority.

The population within the RSA for the East Gilroy MOWF under Alternative 3 and the South Gilroy MOWF under Alternatives 1 and 2 is 66.2 percent minority, while the population within the South Gilroy MOWF under Alternative 4 is 53.5 percent minority. These rates of minority representation are below that of the reference community (63.4 percent minority).

Pacheco Pass Subsection

Within the Pacheco Pass Subsection, the environmental justice RSA is 57.4 percent minority populations, which is 6.4 percent less than the reference community. The eastern portion of the Pacheco Pass Subsection, in unincorporated Merced County, is 59.8 percent minority. The western portion of the subsection in unincorporated Santa Clara County is 26.9 percent minority.

San Joaquin Valley Subsection

Within the San Joaquin Valley Subsection, the environmental justice RSA is 72.4 percent minority, which is 9.0 percent greater than the reference community. The highest concentration of minority populations occurs in residential portions of Los Banos and rural agricultural areas north and east of Los Banos, where the population is between 71 and 77 percent Hispanic or Latino and 79.5 and 80.0 percent minority. The population within the RSA for the MOWS is 59.3 percent minority, below that of the reference community (63.4 percent).

5.4.4 Other Sensitive Populations

5.4.4.1 Reference Community

In addition to minority populations and low-income populations, this environmental justice analysis also examines the distribution of sensitive populations, such as linguistically isolated, disabled, or elderly persons. Linguistically isolated households, elderly populations, and disabled persons may have special relocation needs. As shown in Table 5-1, nearly 12 percent of households in the reference community were linguistically isolated as of the last census (U.S. Census Bureau ACS 2010–2014f). These rates of linguistic isolation are comparable to those of California. Of the three counties, Merced County had the highest concentration of linguistically isolated households at 13 percent.

The elderly population (65 years and older) was approximately 10 percent in the reference community and was comparable among all three counties, ranging from 10 to almost 12 percent of the total population, in 2014 (U.S. Census Bureau ACS 2010–2014a). The percent of the population over the age of 5 with a disability was almost 9 percent of the reference community. Santa Clara and San Benito Counties were comparable at approximately 8 and 9 percent, respectively, while the percent of the population with disability status in Merced County was close to 16 percent (U.S. Census Bureau ACS 2010–2014e).



Demographic data for the reference community likely undercount migrant agricultural workers because some of these workers are undocumented. This is a consideration when identifying minority populations and low-income populations in rural areas like the San Joaquin Valley. Migrant workers are predominantly minority populations and low-income populations and are defined as farm workers whose employment requires travel, preventing them from returning to a permanent residence every day. According to the most recent National Agricultural Workers Survey, from 2007 to 2009, nationwide, 72 percent of farm workers were foreign-born, and 23 percent of all farm workers had family incomes below federal poverty guidelines (Carroll et al. 2011). The National Center for Farmworker Health estimated that in 2012 Merced County had 20,398 crop production workers (National Center for Farmworker Health 2015).⁵

5.4.4.2 Resource Study Area

Table 5-11 shows other sensitive populations within the environmental justice RSA by subsection and by city and community. Within the environmental justice RSA in 2014, approximately 10 percent of individuals were over the age of 65, 8 percent had a disability, and 11 percent of households were linguistically isolated (U.S. Census Bureau ACS 2010–2014a, 2010–2014e, 2010–2014f). The environmental justice RSA within the Pacheco Pass Subsection had the lowest and highest percentages of linguistically isolated households, ranging from 1.5 percent in unincorporated Santa Clara County to over 20 percent in unincorporated Merced County. The Morgan Hill and Gilroy Subsection had the lowest percentage of linguistically isolated households, which was under 7 percent (U.S. Census Bureau ACS 2010–2014f). The percentages of populations over 65 years of age and disabled populations did not substantially differ among the five subsections.

Table 5-11 Other Sensitive Populations within the Resource Study Area (2014 Estimates)

Subsection and City/Community within RSA	Percent of Population Over 65 Years	Percent of Population with Disability Status ¹	Percent of Households Linguistically Isolated
San Jose Diridon Station Approach	8.7	8.1	11.8
Santa Clara	8.0	7.3	11.8
San Jose	8.9	8.3	11.8
Monterey Corridor	9.9	8.4	13.1
San Jose	9.9	8.4	12.7
Unincorporated Santa Clara County	10.0	8.8	20.4
Morgan Hill and Gilroy	10.5	8.2	6.4
San Jose	12.7	7.0	3.9
Morgan Hill	10.3	7.7	5.6
San Martin	14.4	9.9	7.6
Gilroy	8.7	8.5	8.7
Unincorporated Santa Clara County	11.4	8.1	5.5
Unincorporated San Benito County	11.3	8.5	2.8

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⁵ Crop production workers include both migrant workers and seasonal farm workers.



Subsection and City/Community within RSA	Percent of Population Over 65 Years	Percent of Population with Disability Status ¹	Percent of Households Linguistically Isolated
Pacheco Pass	10.0	10.7	20.4
Unincorporated Santa Clara County	21.9	14.0	1.5
Unincorporated Merced County	9.0	10.4	22.0
San Joaquin Valley	8.2	8.9	19.6
Los Banos	7.6	8.4	18.1
Unincorporated Merced County	8.3	9.0	19.9
Environmental Justice Resource Study Area Total ²	9.6	8.3	11.4

Sources: U.S. Census Bureau ACS 2010-2014a, 2010-2014e, 2010-2014f

San Jose Diridon Station Approach Subsection

The environmental justice RSA for the other sensitive populations within the San Jose Diridon Station Approach Subsection ranged between 8 and 12 percent, all of which were slightly less than the percentages in the reference community as a whole, except for the percent of linguistically isolated households, which was slightly higher. Sensitive populations within the RSA for the San Jose Diridon Station (Table 5-5) were comparable to the environmental justice RSA for the subsection as a whole.

Monterey Corridor Subsection

Within the Monterey Corridor Subsection, the environmental justice RSA had just over 13 percent of households that were linguistically isolated in 2014. This was higher than the percentage of linguistically isolated households in the reference community. The other sensitive populations in San Jose were more comparable to the reference community RSA, at approximately 10 percent for the population over 65 and 8 percent for the population with disability status (U.S. Census Bureau ACS 2010–2014a, 2010–2014e, 2010–2014f). The largest difference within the subsection between San Jose and unincorporated Santa Clara County was the higher rate of households that were linguistically isolated in unincorporated Santa Clara County (20 percent) compared to San Jose (13 percent).

Morgan Hill and Gilroy Subsection

Within the Morgan Hill and Gilroy Subsection, the cities and communities within the environmental justice RSA had a higher percentage of elderly citizens than the reference community, with the exception of Gilroy at approximately 9 percent. San Martin was highest, with more than 14 percent of the population over 65 years old. The disability status percentages in the cities and communities ranged from approximately 7 to 10 percent, compared to 9 percent in the reference community. The difference in linguistically isolated households was more variable, with only 3 percent in unincorporated San Benito County and approaching 9 percent in Gilroy. The percent of the population that was over 65 years old within the RSAs for the Downtown Gilroy Station, East Gilroy Station, South Gilroy MOWF, and East Gilroy MOWF (Table 5-5) was comparable to the reference community. The RSAs for stations and maintenance facilities in the Morgan Hill and Gilroy Subsection tend to have higher rates of linguistic isolation and disability, compared to the reference community.

Pacheco Pass Subsection

The Pacheco Pass Subsection had the greatest variance among communities for all three sensitive populations. The environmental justice RSA in unincorporated Santa Clara County had a high percentage (nearly 22 percent) of the population over 65 years old, which is 13 percent

¹Per U.S. Census Bureau data, this is the percent of population with a disability who are over the age of 5.

² Resource study area data were calculated through a weighted average based on the population within each subsection.



more than that of the environmental justice RSA in unincorporated Merced County. The percentage of the population with a disability was higher as well, by approximately 4 percent. However, the greatest difference between unincorporated Merced County and unincorporated Santa Clara County is the percentage of linguistically isolated households, at approximately 22 percent and 2 percent, respectively.

San Joaquin Valley Subsection

Within the San Joaquin Valley Subsection, Los Banos and the unincorporated Merced County had high percentages of linguistically isolated households (18.1 percent and 19.9 percent, respectively) compared to the reference community as a whole. Los Banos had the lowest elderly population of all the cities and communities in all of the subsections, at approximately 19 and 8 percent, respectively.

5.5 Environmental Justice Engagement and Documentation

5.5.1 Affected Populations and Communities

As documented in Section 5.4, Affected Environment, minority populations and low-income populations are located throughout the environmental justice RSA. Concentrations of minority populations or low-income populations are greater than the reference community in Santa Clara, downtown San Jose, South San Jose, unincorporated Santa Clara County in the Monterey Corridor Subsection, Gilroy, Morgan Hill, unincorporated Merced County, and Los Banos. Concentrations of minority populations or low-income populations are less than the reference community in San Martin and unincorporated San Benito County (U.S. Census Bureau ACS 2010–2014c, 2010–2014d). Input on the locations of minority populations and low-income populations from local stakeholders and community groups, elected officials, and staff members supplemented the demographic analysis in Section 5.4, and included coordination with the following individuals and groups:

- Local experts and consultants
- City staff and elected officials familiar with minority populations and low-income populations in the RSA
- Local neighborhood/homeowner associations (e.g., the neighborhood associations of Gardner, Seven Trees, and Goodyear-Mastic), special interest groups, community centers, faith-based organizations, and local chambers of commerce and other business stakeholders

Analysts reviewed community newspapers, websites, and blogs, and conducted additional online research of organizations that serve minority populations and low-income populations. Analysts also relied on previous work experience in the corridor for the identification of additional stakeholders and organizations.

5.5.2 Engagement Methods

Targeted outreach to the minority populations, low-income populations, and other sensitive populations in the environmental justice RSA is a crucial component in developing an all-inclusive participation and information program. The Authority will continue targeted outreach throughout the project design and construction phases. These outreach efforts consider all recommendations and factors for outreach included in the Authority's Title VI and environmental justice guidance (Authority 2012a, 2012b, 2012c), including:

• Consideration of the time, location, and accessibility of all meetings. This effort also includes encouraging meaningful participation of sensitive populations by using other means for engagement such as interviews, briefings, and the use of audio devices to record comments. In addition, all meetings include multiple notification methods, provision of interpreters, venue locations that are accessible (Americans with Disabilities Act compliant) and formats that provide for different ways to learn about the project alternatives and share feedback.



- Reaching people within their own communities and during existing meetings schedules. This
 effort includes utilizing existing community groups and their knowledge of the community to
 reach minority populations, low-income populations, and sensitive populations more
 effectively. This also includes selection of meeting locations that are culturally sensitive.
- Provision of Spanish-speaking interpreters and translated meeting materials at all public information meetings hosted by the Authority
- Presentations focused to specific interest groups
- Placement of meeting announcements and flyers through different types of media and advertisement of meeting notices in Mandarin, Spanish, Vietnamese, and Tagalog to reach populations of limited English proficiency
- Cultural sensitivity to minority groups
- Identification of barriers to public participation and ways to overcome those barriers

These activities are summarized in the following section.

5.5.3 Environmental Justice Outreach Events

Extensive public and agency outreach has been conducted for this Final EIR/EIS. These outreach efforts are documented in Chapter 9, Public and Agency Involvement, of this Final EIR/EIS. This process will continue through the design and construction phases of the project. Table 5-12 describes the outreach to minority populations and low-income populations conducted by the Authority between August 2016 and March 2021, and meeting locations are shown on Figure 5-14. These outreach activities included presentations at public and stakeholder group meetings, interviews with local stakeholders, informational tabling at various types of community events, and online community webinars. This list also includes outreach efforts associated with community improvements, which are described in more detail in Section 5.5.4, Environmental Justice Community Improvements Outreach.

Table 5-12 Outreach to Minority Populations and Low-Income Populations

Date	Meeting Type	Meeting Location	Description
August 20, 2016	Gardner Flea Market	Gardner Community Center, San Jose	The Authority set up an informational table at the entrance of the Gardner Community Flea Market (a seasonal market open to the public located in an area with low-income populations) with informational handouts and a sign-in sheet. The Authority provided a large-format map of the Gardner neighborhood and those who visited the table were invited to place dots on the map to indicate their residence. Gardner is identified as a low-income population for the environmental justice analysis.



Date	Meeting Type	Meeting Location	Description
September 18, 2016	Viva Calle	Willow Glen Neighborhood, San Jose	Viva CalleSJ is a free program that temporarily closes miles of San Jose streets to bring communities together to walk, bike, skate, play, and explore the city. The Authority set up an information table at the Willow Glen Activity Hub with informational handouts and a sign-in sheet. A large-scale version of the Community Values Exercise (see the Environmental Justice Engagement Summary Report [Appendix 5-B) was completed by three members of the public, and visitors were invited to indicate their residence on a large-format map of San Jose. Thirty people visited the informational table. The Willow Glen neighborhood is located adjacent to minority populations and low-income populations within the environmental justice RSA and this event was expected to draw residents from nearby areas due to the scale of the event.
October 20, 2016	Gilroy Eliot School Community Meeting	Gilroy	The City of Gilroy hosted a community meeting focused on the planning and design of Gilroy's HSR station. The Eliot School is located within a low-income area and minority area within the environmental justice RSA. The meeting included six different information stations focusing on station planning and design, environmental milestones, the relationship between private property and HSR, and proposed HSR alignments. Attendees were organized into breakout groups and had 15 minutes at each station. At each station, a facilitator took notes on a flip chart and reported out to the group at the end of the meeting. The Authority provided handouts, answered attendees' questions, and received two comment cards. Approximately 65 people attended the meeting.
October 27, 2016	Monterey Road Community Presentation	Edenvale Library, San Jose	San Jose District 2 hosted a community meeting focused on the project. Authority staff presented on the project and answered questions from meeting attendees. Approximately 100 people attended the meeting. The Edenvale Library is located adjacent to the project alternatives in an area with both minority populations and low-income populations.
November 14, 2016	Small meeting with community leaders in Eliot Elementary School neighborhood to discuss future outreach	Police Department Community Meeting Room, Gilroy	Authority staff met with local residents to discuss outreach strategies to communities and businesses in the downtown Gilroy area, where the project alternatives are located in areas with minority populations and low-income populations. Among the communities discussed were the Eliot Elementary School neighborhood, which would be affected by two of the proposed project alternatives. The meeting included a brief presentation by Authority staff on the project. The presentation was followed by discussions on community interests and priorities related to HSR and stakeholder input on how best to engage Gilroy residents moving forward. Nine members of the public attended the meeting.



Date	Meeting Type	Meeting Location	Description
November 29, 2016	Information tabling at Edenvale Public Library	Edenvale Public Library, San Jose	The Authority set up an information table at the Edenvale Public Library, which was identified through coordination with San Jose District 2 Councilmember Ash Kalra's office as a minority community and low-income community in proximity to the proposed alignments. Handouts were provided and 11 people signed in.
December 7, 2016	Presentation to Edenvale Great Oaks Plan Implementation Coalition	Edenvale Community Center, San Jose	Edenvale Great Oaks Plan Implementation Coalition hosted a community meeting focused on the project. Authority staff presented on the project and answered questions from meeting attendees, which were moderated by Edenvale Great Oaks Plan Implementation Coalition's president. Nineteen members of the public attended the meeting. The Edenvale Community Center is located within the environmental justice RSA in an area with both minority populations and low-income populations.
December 19, 2016	Gilroy Public Library Tabling	Gilroy Library, Gilroy	The Gilroy Public Library, located within a mile of the proposed downtown Gilroy station, was recommended during the November 14, 2016, Gilroy Outreach Planning Meetings, as a location for information tabling that would be frequented by local residents, including minority populations and low-income populations. The Authority set up an informational table at the library with handouts and sign-in sheets. Large-scale maps of the proposed Downtown Gilroy and East Gilroy Stations were also available. Members of the public who visited the information table were invited to sign up for the Authority's mailing list to stay informed of upcoming public meetings. Six members of the public visited the table.
February 1, 2017	Seven Trees Neighborhood Association	Seven Trees Community Center, San Jose	Authority staff made a presentation at a regularly scheduled Seven Trees Neighborhood Association meeting. The presentation was followed by a question-and-answer session that was moderated by Authority staff and the neighborhood association president. The focus of the presentation was to provide information about the project and an opportunity for questions and answers on the proposed alignment alternatives in the Monterey Corridor Subsection. Seventeen members of the public attended the meeting. The Seven Trees Community Center is located within the environmental justice RSA in an area with both minority populations and low-income populations.



Date	Meeting Type	Meeting Location	Description
February 13, 2017	Gardner Neighborhood Association	Gardner Community Center, San Jose	Authority staff made a presentation at a regularly scheduled Gardner Neighborhood Association meeting located in an area with low-income populations. The presentation was followed by a question-and-answer session that was moderated by Authority staff and the neighborhood association president. The focus of the presentation was to provide information about the project and an opportunity for questions and answers on the proposed alignment alternatives for the San Jose Diridon Station Approach Subsection and the Gardner area. Twelve members of the public attended the meeting.
March 8, 2017	Goodyear- Mastic and Alma Neighborhood Association Joint Meeting	Alma Senior Center, San Jose	The Alma Senior Center is located within the environmental justice RSA in an area with both minority populations and low-income populations. Authority staff made a presentation at a regularly scheduled joint meeting of the Goodyear-Mastic and Alma Neighborhood Associations. The Tamien Neighborhood was also invited to attend this meeting.
			The presentation was followed by a question-and-answer session that was moderated by Authority Staff and the neighborhood association presidents. The focus of the presentation was to provide information about the project and an opportunity for questions and answers on the proposed alignment alternatives for the San Jose Diridon Station Approach Subsection and Monterey Corridor Subsection. Twenty-four members of the public attended the meeting.
April 6, 2017	Gilroy Public Library Tabling	Gilroy Downtown Library	Consultant staff set up information tables at the Gilroy Public Library to provide project information and collect public comments. Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.
April 17, 2017	Information tabling at Arteaga's Super Saver Market	Arteaga's Super Saver Market, Gilroy	Consultant staff set up information tables at Arteaga's Super Saver Market in Gilroy to provide project information and collect public comments. Arteaga's Super Saver Market is located adjacent to the project alternatives in an area with both minority populations and low-income populations.
July 19, 2017	Presentation to the Gilroy Community & Neighborhood Revitalization Committee	Gilroy Senior Center, Gilroy	Authority staff made a presentation to the Gilroy Community Neighborhood Revitalization Committee, that included updates on the Statewide Program, environmental process and evaluation criteria, range of alternatives for the Monterey Corridor Subsection, and future meeting dates and topics. Authority staff also responded to questions. Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.



Date	Meeting Type	Meeting Location	Description
September 9, 2017	Presentation to United Neighborhoods of Santa Clara County Neighborhood Development Conference	Seven Trees Community Center, San Jose	Authority staff made a presentation at the United Neighborhoods of Santa Clara County Neighborhood Development Conference that included statewide and project section updates. The Seven Trees Community Center is located within the environmental justice RSA in an area with both minority populations and low-income populations.
September 11, 2017	Presentation to Senter Monterey Neighborhood Association	Tully Library Community Room, San Jose	Authority staff made a presentation to the Senter Monterey Neighborhood Association on topics such as noise, commute, housing, and other impacts along Monterey Road. The environmental justice RSA in Monterey Corridor includes both minority populations and lowincome populations.
September 18, 2017	Presentation to Gardner Neighborhood Association	Gardner Community Center, San Jose	Authority staff made a presentation to the Gardner Neighborhood Association located in an area with low-income populations. The presentation included project section updates, review of project alternatives in the San Jose Diridon Station Approach Subsection, and a review of community input. Authority staff also responded to questions.
June 8, 2018	Gilroy Right-of- Way Workshop	Old City Hall Restaurant, Gilroy	Authority staff participated in a meeting with the Gilroy Chamber of Commerce, Mayor Roland Velasco, Gilroy City Administrator Gabriel Gonzalez, and local businesses, during which the Authority presented on the 2018 Business Plan and gave an overview of the right-of-way process. Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.
July 2, 2018	Oak Grove Neighborhood Association Meeting	Southside Community Center, San Jose	Authority staff made a presentation to the Oak Grove Neighborhood Association primarily regarding the 2018 Business Plan. The Southside Community Center is located near the project alternatives in an area with both minority populations and low-income populations.
August 14, 2018	Morgan Hill Morning Community Meeting	Morgan Hill Chamber of Commerce, Morgan Hill	Authority staff were invited by the Morgan Hill Chamber of Commerce to provide an update to business owners and members of the public on the project section, new UPRR alignment, 2018 Business Plan, and the right-of-way process. The workshop consisted of a presentation by Authority staff, a question-and-answer session, and map review. The Morgan Hill Chamber of Commerce is located near the project alternatives in an area with low-income populations.



Date	Meeting Type	Meeting Location	Description
August 14, 2018	Morgan Hill Evening Community Meeting	Morgan Hill Chamber of Commerce, Morgan Hill	Authority staff were invited by the Morgan Hill Chamber of Commerce to provide an update to business owners and members of the public on the project section, new UPRR alignment, 2018 Business Plan, and the right-of-way process. The workshop consisted of a presentation by Authority staff, a question-and-answer session, and map review. The Morgan Hill Chamber of Commerce is located near the project alternatives in an area with low-income populations.
September 20, 2018	Gilroy Small Business Workshop	Gilroy Veterans Memorial Hall	Authority staff attended and shared information about the project at a workshop for small businesses in Gilroy. Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.
September 24, 2018	Gilroy Unified School District and Gilroy City Council Joint Meeting	City Council Chambers, Gilroy	Authority staff provided a project update and an overview of the 2018 Business Plan and the project alternative alignments (including the blended alignment). Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.
October 18, 2018	San Martin Neighborhood Alliance Meeting	Lion's Club, San Martin	Authority staff provided a project update, a map review, an overview of the 2018 Business Plan, project alternative alignments (including the blended alignment), and right of way process.
October 23, 2018	Delmas Park Neighborhood Association Meeting	The Learning Center, San Jose	Authority staff were invited by the Delmas Park Neighborhood Association to provide an update on the 2018 Business Plan and the project alternatives under consideration in San Jose. The workshop consisted of a presentation by Authority staff and a question-and-answer session. The Delmas Park neighborhood is located near the project alternatives in an area with low-income populations.
March 6, 2019	Vietnamese Voluntary Organization	San Jose	Authority staff convened a Vietnamese in-language meeting with members of the Vietnamese community in San Jose to provide updates on the project and solicit input on the project alternatives.
March 26, 2019	Community Meeting	Volta Elementary School	Authority staff convened a Spanish in-language meeting to increase awareness about the project in the Volta Elementary School and the Los Banos community as a whole. Over 20 members of the community participated and were actively engaged throughout the meeting. In addition, community members provided comments and asked questions about the train's affordability, right-of-way acquisitions, and impact on roadway access for the school community.



Date	Meeting Type	Meeting Location	Description
May 13, 2019	Gardner Community Meeting with Gardner Neighborhood Association	Gardner Community Center, San Jose	Authority staff convened a Spanish in-language meeting in response to requests from the Gardner Neighborhood Association. Staff provided project information to increase awareness about the project and collected feedback about project-related impacts. Approximately 15 members of the public participated. Gardner is identified as a low-income population for the environmental justice analysis.
May 28, 2019	Gilroy Community Meeting	South Valley Middle School, Gilroy	Following interviews with Gilroy community groups, the Authority convened a Spanish in-language meeting with the Gilroy community. Key discussion topics included safety, impacts on schools along IOOF Avenue and Rebekah Children's Center, preferred alternative selection criteria, and the project timeline. Staff also solicited input from the community about project-related impacts. Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.
May 31, 2019	Homeless Walks with HomeFirst	Monterey Corridor, Santa Clara County	Authority staff shadowed two HomeFirst staff members as they conducted outreach along the Monterey Corridor. Through this outreach, the team interacted with members of the homeless community living along the Caltrain tracks and discussed concerns related to safety.
June 13, 2019	St. Joseph's Family Center Homeless Dinner	St. Joseph's Family Center, Gilroy	Authority staff attended a tri-weekly hot dinner service provided by the St. Joseph's Family Center. Staff spoke to approximately 20 attendees regarding the potential effects of the project, including that the project would provide increased transportation options and economic benefits. Both minority populations and low-income populations are located adjacent to the project alternatives in Gilroy.
June 14, 2019	Homeless Walks with PATH	San Jose Diridon Station area	Authority staff shadowed PATH staff as they conducted outreach to the homeless community around Diridon Station and near the Guadalupe River. Through this outreach, the team interacted with members of the homeless community regarding project impacts including fencing and heightened security at the station deterring overnight stays and encampments.
July 5, 2019	Music in the Park	Downtown Amphitheatre, Morgan Hill	Authority staff set up an informational booth at the Morgan Hill Chamber of Commerce's Friday Night Music Series. The Morgan Hill Chamber of Commerce is located near the project alternatives in an area with low-income populations. Approximately 50 members of the public stopped to learn more about the High-Speed Rail project and ask questions.



Date	Meeting Type	Meeting Location	Description
August 1, 2019	Morgan Hill Chamber of Commerce Breakfast	Community and Cultural Center, Morgan Hill	Authority staff were invited to give a short project update at the monthly Morgan Hill Chamber of Commerce breakfast meeting. The Morgan Hill Chamber of Commerce is located near the project alternatives in an area with low-income populations. Approximately 75 attendees were provided an update on construction in the Central Valley, Caltrain electrification, and the State's Preferred Alternative selection process. Staff also encouraged attendance at upcoming Open House meetings. Staff also received input from the community members, including concern for project funding and safety issues along the alignment, especially regarding schools.
August 9, 2019	Downtown San Jose Farmers Market	Downtown San Jose	The San Jose Farmers Market is held every Friday during the spring and summer months across several blocks of downtown San Jose in an area with low-income populations. Authority representatives staffed an information table, speaking to approximately 60 people and providing project updates and receiving feedback. Input from the community included concern regarding the impacts to the Diridon neighborhood, including property impacts and eminent domain, coordination with other transit agencies, traffic, safety, and connections between Millbrae Station and SFO.
September 20- 21, 2019	Vietnamese Moon Festival	Eastridge Mall, San Jose	Authority representatives set up an informational table at the Vietnamese Moon Festival. This year, the Festival estimated 30,000 majority-Vietnamese community members attended the event. Staff were present on Friday and Saturday, with Vietnamese-speaking staff present on Friday. Staff sought to increase the community's awareness of the project, collect feedback from the community, and connect with Vietnamese community members and service providers.
October 16, 2019	Ground-truthing (observing)	San Jose and Santa Clara	The Authority's outreach team observed communities around the Tamien Caltrain and Santa Clara stations. In San Jose, the outreach team identified a homeless encampment, residences, and businesses that could be affected by the project. In Santa Clara, the team observed that much of the area around the station was occupied by businesses and retail. However, a small residential community located on Main Street, in the vicinity of Sahara Way, was identified as a low-income neighborhood and minority neighborhood that could be impacted.
November 6, 2019	Community Meeting with Better Tomorrow: San Jose	Oak Grove High School, San Jose	Better Tomorrow: San Jose is a community organization in South San Jose founded in 2016. Authority representatives were invited to participate in their first "Community Sessions" event to present information on HSR. Approximately 20 individuals attended, most in their late teens or early 20's.



Date	Meeting Type	Meeting Location	Description
December 13, 2019	Gardner Academy parents and community	Gardner Academy, San Jose	Authority representatives gave a presentation to approximately 35 parents and other community members. Gardner is identified as a low-income population for the environmental justice analysis.
December 13, 2019	Gardner Neighborhood Walk	Gardner Academy and surrounding neighborhood, San Jose	Authority staff joined representatives of the Gardner Neighborhood Association, the Office of Congresswoman Zoe Lofgren, and San Jose Unified School District to walk around the neighborhood and identify community impacts. Participants expressed concern about further isolation, maintenance of tracks and bridges that children would cross to get to school, impacts on emergency response times, and preservation of Fuller Park. Gardner is identified as a low-income population for the environmental justice analysis.
January 8, 2020	West Valley Community Services Meeting	West Valley Community Services, Cupertino	Authority representatives met with representatives of West Valley Community Services to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 15, 2020	Morgan Hill Unified School District and Coordinated Advocacy & Resource for Education (CARE) Meeting	Morgan Hill Unified School District, Morgan Hill	Authority representatives met with representatives of Morgan Hill Unified School District and the District's Coordinated Advocacy & Resources for Education (CARE) program to provide project updates and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 15, 2020	Gilroy High School Meeting	Gilroy High School, Gilroy	Authority representatives met with the Gilroy High School principal to provide a project overview and updates.
January 15, 2020	City of Morgan Hill Meeting	City of Morgan Hill, Morgan Hill	Authority representatives met with representatives of Morgan Hill's Housing Services Division to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 16, 2020	Gavilan College Meeting	Gavilan College, Gilroy	Authority representatives met with representatives of Gavilan College to solicit input on potential workforce development opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 16, 2020	Santa Clara Unified School District Meeting	Santa Clara Unified School District, Santa Clara	Authority representatives met with representatives of Santa Clara Unified School District to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.



Date	Meeting Type	Meeting Location	Description
January 16, 2020	Sacred Heart Nativity Meeting	Sacred Heart Nativity, San Jose	Authority representatives met with representatives of Sacred Heart Nativity to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 17, 2020	Family & Children's Services of Silicon Valley Meeting	Palo Alto	Authority representatives met with representatives of Family & Children's Services of Silicon Valley to provide project updates and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 22, 2020	Guadalupe- Washington Safety Coalition Meeting	Guadalupe- Washington neighborhood, San Jose	Authority representatives met with representatives of Guadalupe-Washington Safety Coalition to provide project updates and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 23, 2020	San Jose City College Meeting	San Jose City College	Authority representatives met with representatives of San Jose City College to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 23, 2020	African American Community Services Agency Meeting	African American Community Services Agency, San Jose	Authority representatives met with representatives of the African American Community Services Agency to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 23, 2020	Go Kids (formerly Estrella Family Services) Meeting	Go Kids office, San Jose	Authority representatives met with representatives of Go Kids to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 23, 2020	San Jose Unified School District Meeting	San Jose Unified School District office, San Jose	Authority representatives met with representatives of San Jose Unified School District to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 28, 2020	Presentation to Gilroy Unified School District	Gilroy Unified School District, Gilroy	Authority representatives met with representatives of Gilroy Unified School District to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.



Date	Meeting Type	Meeting Location	Description
January 29, 2020	Los Banos Unified School District Meeting	Los Banos Unified School District, Los Banos	Authority representatives met with representatives of Los Banos Unified School District to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 29, 2020	Rocketship Public Schools Meeting	Redwood City	Authority representatives met with representatives of Rocketship Public Schools to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
January 30, 2020	East Side Union High School District Meeting	East Side Union High School District, San Jose	Authority representatives met with representatives of East Side Union High School District to provide a project overview and discuss environmental justice community impacts.
January 30, 2020	Voices Charter Academy Meeting	Voices Charter Academy, San Jose	Authority representatives met with representatives of Voices Charter Academy to provide a project overview and discuss environmental justice community impacts.
January 30, 2020	Santa Clara County Planning Community Improvement Meeting	Santa Clara County offices, San Jose	Authority representatives met with representatives of Santa Clara County to provide a project overview and discuss environmental justice community impacts.
January 30, 2020	Danny Garza, San Jose Community Leader Meeting	San Jose	Authority representatives met with City Council candidate Danny Garza to provide a project overview briefing.
January 30, 2020	Meeting with Staff for State Senator Jim Beall	San Jose	Authority representatives met with staff for Senator Jim Beall to provide a project overview briefing and an update on the environmental justice engagement process.
February 1, 2020	Information Tabling at Shasta Hanchett Park Neighborhood Association Fair	Westminster Presbyterian Church, San Jose	Consultant staff set up information tables at the Shasta Hanchett Park Neighborhood Association Fair to provide project information. Approximately 60 individuals attended the event.
February 1, 2020	Information Tabling at Meet the Black Authors and Artists Event	African American Community Services Agency, San Jose	Consultant staff set up information tables at the African American Community Services Agency's Meet the Black Authors and Artists Event to provide project information and updates. Approximately 75 individuals attended the event.
February 3, 2020	City of San Jose Parks/Trails Meeting	City of San Jose office, San Jose	Authority representatives met with representatives of the City of San Jose Parks and Trails to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.



Date	Meeting Type	Meeting Location	Description
February 6, 2020	Homeless Service Providers Meeting	Santa Clara, San Jose	Authority representatives met with homeless service providers from the San Jose and Santa Clara communities to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 6, 2020	Oak Grove Elementary School District Meeting	Oak Grove Elementary School District, San Jose	Authority representatives met with representatives of Oak Grove Elementary School District to provide a project overview and discuss environmental justice community impacts.
February 6, 2020	Washington Elementary School Meeting	Washington Elementary School, San Jose	Authority representatives met with representatives of Washington Elementary School to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 6, 2020	Santa Clara Unified School District Meeting	Santa Clara Unified School District, Santa Clara	Authority representatives met with principals of several Santa Clara Unified School District to provide a project overview and discuss environmental justice community impacts.
February 7, 2020	Council on American Islamic Relations (CAIR) Meeting	Santa Clara	Authority representatives met with the Council on American Islamic Relations to provide a project overview and discuss environmental justice community impacts.
February 7, 2020	San Jose Word of Faith Christian Center Meeting	San Jose Word of Faith, San Jose	Authority representatives met with the Board of the San Jose Word of Faith Christian Center to provide a project overview and discuss environmental justice community impacts.
February 7, 2020	ICAN Family Resource Center Meeting	ICAN Family Resource Center, San Jose	Authority representatives met with representatives of ICAN Family Resource Center to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 10, 2020	NextDoor Solutions Meeting	San Jose	Authority representatives met with representatives of NextDoor Solutions to provide project updates and discuss environmental justice community impacts.
February 10, 2020	Mission College Meeting	Mission College, Santa Clara	Authority representatives met with representatives of Mission College to provide project updates and discuss environmental justice community impacts.
February 20, 2020	Guadalupe- Washington Safety Coalition Community Walk	Guadalupe- Washington neighborhood, San Jose	Authority representatives participated in a community walk in the Guadalupe-Washington neighborhood of San Jose, discussed environmental justice community impacts, and solicited input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.



Date	Meeting Type	Meeting Location	Description
February 20, 2020	Center for Employment Training Meeting	Center for Employment Training, San Jose	Authority representatives met with representatives of the Center for Employment Training to provide a project overview and discuss potential workforce development opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 20, 2020	Guadalupe- Washington Neighborhood Association	San Jose	Authority representatives met with members of the Guadalupe-Washington Neighborhood Association to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 21, 2020	Information Tabling at Family Fun Friday	African American Community Services Agency, San Jose	Consultant staff set up information tables at the African American Community Services Agency's Family Fun Friday to provide project information and updates. Approximately 40 individuals attended the event.
February 24, 2020	Emergency Assistance Network	San Jose	Authority representatives met with representatives of the Emergency Assistance Network to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 26, 2020	Site Tour of Rocketship Mateo Sheedy Elementary School	Rocketship Mateo Sheedy Elementary School, San Jose	Authority representatives toured the Rocketship Mateo Sheedy Elementary School to solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 26, 2020	Next Door Solutions/Home Safe Site Tour	San Jose	Authority representatives participated in a site tour, provided project updates, and solicited input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 27, 2020	HomeFirst Service Area Assessment	San Jose	Authority representatives met with representatives of HomeFirst to discuss community impacts and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
February 28, 2020	South Bay Islamic Association Meeting	South Bay Islamic Association, San Jose	Authority representatives met with representatives of the South Bay Islamic Association to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.



Date	Meeting Type	Meeting Location	Description
March 4, 2020	San Jose Fire Department Meeting	City of San Jose offices, San Jose	Authority representatives met with representatives of the San Jose Fire Department to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
March 4, 2020	Oak Grove High School Latino Parents	Oak Grove High School, San Jose	Authority representatives met with representatives of the Oak Grove High School Latino Parents organization to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects. Approximately 14 individuals attended the event.
March 10, 2020	Tamien Community Walk	Tamien neighborhood, San Jose	Authority representatives participated in a briefing and community walk with members of the Tamien neighborhood of San Jose.
March 11, 2020	City of Santa Clara Meeting	City of Santa Clara office, Santa Clara	Authority representatives met with the City of Santa Clara to provide a project overview and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
March 12, 2020	Vietnamese American Round Table Meeting	San Jose	Authority representatives met with the representatives of the Vietnamese American Round Table to provide project updates and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
March 12, 2020	Vietnamese Voluntary Foundation (VIVO) Meeting	San Jose	Authority representatives met with representatives of the Vietnamese Voluntary Foundation to provide project updates and solicit input on potential community improvement opportunities that may provide local community benefits that could help to offset residual disproportionately high and adverse effects.
April 16, 2020	Franklin- McKinley School District, San Jose	Webinar (online)	Authority representatives met with school district staff via an online meeting/webinar to provide a project overview, information on the Draft EIR/EIS, and the process for providing public comments.
April 19, 2020	Muslim Community Association	Webinar (online)	Authority representatives met with the Muslim Community Association via an online meeting/webinar to provide a project overview, information on the Draft EIR/EIS, and the process for providing public comments.
April 21, 2020	Edenvale Great Oaks Plan Implementation Coalition Meeting	Webinar (online)	Authority representatives hosted a community webinar to provide a project overview, information on the Draft EIR/EIS, and the process for providing public comments.



Date	Meeting Type	Meeting Location	Description
April 23, 2020	Madre-A-Madre Community Webinar	Webinar (online)	Authority representatives hosted a community webinar to provide a project overview, information on the Draft EIR/EIS, and the process for providing public comments. Approximately 10 individuals attended the webinar.
April 28, 2020	San Jose Word of Faith Christian Center Meeting	Webinar (online)	Authority representatives hosted a community webinar to provide a project overview, information on the Draft EIR/EIS, and the process for providing public comments.
June 17, 2020	Santa Clara County Refugee and Immigrant Forum	Webinar (online)	Authority representatives provided a project update to this service provider collaborative (comprised of 10+ focused community-based organizations) regarding the environmental justice community improvement process and the Draft EIR/EIS process.
July 20, 2020	Morgan Hill Unified School District Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 22, 2020	City of Morgan Hill Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 23, 2020	Santa Clara County Parks & Recreation Department Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 24, 2020	Rebekah Children's Services Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 27. 2020	African American Community Service Agency Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 27, 2020	Gavilan College Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 28, 2020	City of Gilroy Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 28, 2020	City of Santa Clara Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 29, 2020	Los Banos Unified School District Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.



Date	Meeting Type	Meeting Location	Description
July 29, 2020	Gilroy Unified School District Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 30, 2020	Center for Employment Training (CET)	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 30, 2020	City of San Jose and San Jose Department of Parks & Recreation Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 30, 2020	VTA Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 31, 2020	Homeless Service Providers Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
July 31, 2020	San Jose Unified School District Meeting	Webinar (online)	Authority representatives hosted a discussion with potential implementing partners to review and refine community improvement ideas and evaluate the ideas.
March 25, 2021	Independence High School Engineering Academy	Webinar (online)	Presentation geared to engineering pathway freshmen at Independence High School on project overview, sustainability, operations, engineering, and careers.

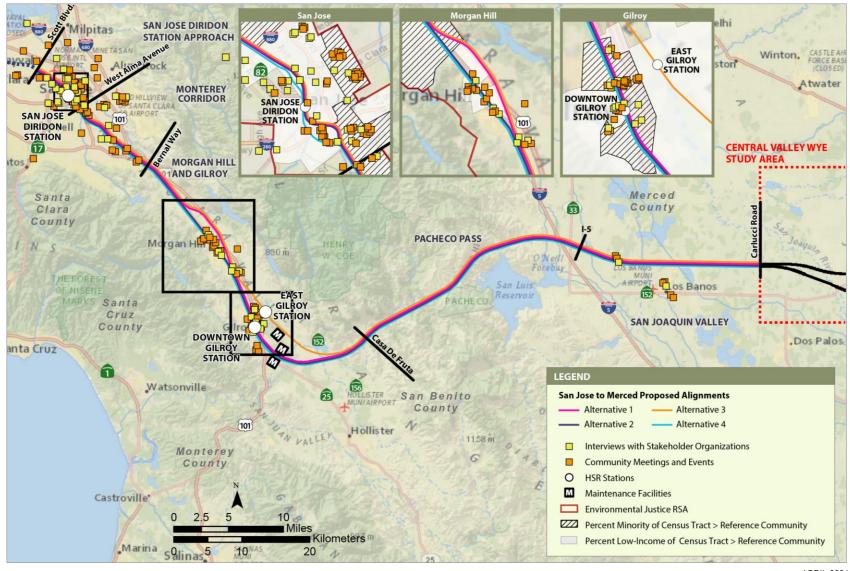
HSR = high-speed rail

SFO = San Francisco International Airport

UPRR = Union Pacific Railroad

VTA = Valley Transportation Authority





APRIL 2021

Figure 5-14 Locations of Environmental Justice Outreach Activities



In addition to the meetings listed in Table 5-12, the Authority participated in the following small group meetings and briefings with representatives of minority communities and low-income communities, to gather information regarding community concerns and to plan future outreach activities:

- June 7, 2016: Meeting with San Jose District 6 neighborhood residents
- September 12, 2016: Presentation to Gilroy City Council
- September 13, 2016: Meeting with San Jose District 2 staff and City of San Jose staff to discuss outreach to residents along Monterey Corridor Subsection

Environmental Justice Organizations

The outreach team conducted a series of interviews in July and August 2016 with stakeholders serving minority populations and low-income populations in the environmental justice RSA to inform the Authority's outreach efforts to these populations. The primary objectives of the interviews were to better understand the interests and concerns of minority populations and low-income populations related to the HSR project; to inform the Authority's strategy for meaningfully engaging minority stakeholders and low-income stakeholders, including anticipating and responding to potential challenges; and to identify specific environmental justice outreach opportunities (e.g., events, meetings, neighborhood groups) and additional stakeholders with whom to partner moving forward. Table 5-13 identifies the stakeholders that were interviewed.

Table 5-13 Interviews with Stakeholder Organizations Held in 2016

Organization	Interview Date
Asian Americans for Community Involvement	8/4/2016
California Environmental Protection Agency ¹	8/5/2016
City of Gilroy	7/26/2016
City of San Jose District 3	8/4/2016
Delmas Park Neighborhood Association	8/4/2016
Sierra Health Foundation	7/28/2016

¹ The California Environmental Protection Agency has an environmental justice program and provides guidance documents and grants for related work. The agency also provides information about minority populations and low-income populations in coordination with California Office of Environmental Health Assessment in the CalEnviroScreen tool.

Results of 2016 stakeholder interviews informed the Authority's strategy to engage minority populations and low-income populations in the environmental justice RSA from 2018 through2021. Stakeholders also offered suggestions on how to effectively engage communities along the project. These engagement suggestions included conducting in-language gatherings, neighborhood walks, and door-to-door canvassing in some neighborhoods; using social media and public service announcements on Spanish-language radio stations to engage Spanish-speaking residents; and providing incentives such as food and childcare at evening and weekend meetings.

These recommendations were incorporated into and continued to shape the targeted environmental justice outreach efforts conducted from 2018 through 2021. Authority staff made efforts to provide accommodations to address the stakeholders' suggestions and provide enhanced outreach whenever feasible by partnering with local organizations. For example:

Authority staff joined local community leaders to conduct neighborhood walks and canvass
door-to-door in select minority communities and low-income communities to answer
community members' questions and provide information about the project. In San Jose's
Gardner neighborhood, for example, the Authority coordinated the planning of an in-language
community meeting with the neighborhood association. In advance of the early evening
meeting held at the local community center, Authority staff canvassed in the neighborhood



and informed members of the public that children and other family members were welcome. The neighborhood association provided refreshments.

- The Authority opted not to provide public service announcements on Spanish-language radio stations, but Authority staff enlisted local community organizations to translate and share information about events on the community organizations' social media postings, via emails and newsletters, and on their websites. For example, a large Vietnamese community foundation in San Jose hosted a presentation by Authority staff. They prepared a flyer about the event in Vietnamese and also provided a meal at the event to encourage participation.
- Multilingual flyers, in-language posters and newspaper ads, and community organizations' social media postings invited members of the public to the summer 2019 open houses regarding the preferred alternative. Based on stakeholder feedback, the outreach consulting team provided family-friendly snacks and a number of children accompanied adult members to these informal events.

Commencing in 2018, direct engagement with community members was coordinated with stakeholders serving minority populations and low-income populations with the intent of increasing awareness and participation in outreach activities conducted for HSR. Service providers served as partners and co-hosts for community outreach meetings and presentations. Several meetings included in-language material and translation services based on community members' needs as indicated by the service providers. In addition, the Authority focused outreach in communities where interviews with service providers indicated that community members lacked awareness of the project (e.g., in Gardner).

As a result of the addition of Alternative 4 in 2018, and the resulting interest from the relevant communities, a second series of interviews were conducted beginning in October 2018 and continuing through December 2019 with stakeholders serving minority populations, low-income populations, and sensitive populations in the environmental justice RSA to continue the Authority's outreach efforts to these populations. Table 5-14 identifies the stakeholders that were interviewed in 2018 and 2019.

Table 5-14 Interviews with Stakeholder Organizations Held in 2018 and 2019

Organization	Interview Date
Alexander Station, Gilroy	4/18/2019
Better Tomorrow: San Jose	10/29/2019
Biblioteca Latinoamericana, San Jose	10/29/2018; 11/9/2018
Bill Wilson Center, San Jose	6/25/2019
Centennial Recreation Center, Morgan Hill	11/14/2018
Charities Housing (property manager for HomeSafe Santa Clara), Santa Clara County	12/9/2019; 12/16/2019
City of Los Banos Community Center	12/10/2018
City of Morgan Hill (Office of the City Manager, Planning, and Economic Development)	11/15/2018
City of Morgan Hill, Older Adult Services	11/14/2018
City of San Jose Environmental Services Department	10/18/2019
Community Agency for Resources, Advocacy, and Services (CARAS) South County, Gilroy	2/7/2019
Community Solutions, Santa Clara County	12/18/2018
Compassion Center, Gilroy	2/28/2019
DeBug Community and Advocacy Group, Santa Clara County	6/26/2019



Organization	Interview Date
Family & Children Services of Silicon Valley, Santa Clara County	10/17/2019
Gardner Academy, San Jose	10/29/2019
Gardner Community Center, San Jose	12/3/2018
Gavilan College, Gilroy	11/8/2018
Gilroy Unified School District	11/9/2018
Gilroy Unified School District and Gilroy High School	3/14/2019
Gilroy Unified School District and Gilroy Prep/Navigator School	12/19/2019
Gilroy Unified School District and South Valley Middle School	12/4/2018
Glen View Elementary, Gilroy	2/12/2019
Guadalupe Washington Neighborhood Association, San Jose	10/29/2019
Hope Services, Gilroy	1/29/2019
International Children Assistance Network (ICAN), Santa Clara County	10/24/2019
Kings View, Los Banos	12/20/2018
La Raza Radio, San Jose	12/3/2019; 12/13/2019
Learning and Loving Education Center, Morgan Hill	12/4/2018
Los Banos Community Center	12/20/2019
Maple Leaf Recreational Vehicle Park, Morgan Hill	11/20/2019
Merced Community Action Agency	11/27/2018
Morgan Hill Community Adult School	12/4/2018
Morgan Hill Unified School District	11/20/2019
Navigator Schools, Gilroy	12/14/2018
Next Door Solutions, Santa Clara County	12/17/2019
PARS Equality Center, Santa Clara County	10/30/2019
Pacific Gas & Electric, San Francisco Bay Area and Central Valley	10/2/2019
Rebekah Assembly, Gilroy	12/4/2018
Rebekah Children's Services, Gilroy	12/20/2018
Refugee and Immigrant Forum of Santa Clara County	10/16/2019
Rocca's Market, San Martin	11/20/2019
Sacred Heart Nativity School, San Jose	12/13/2019
Salvation Army Family Services, San Jose	11/20/2018
Salvation Army's Emmanuel House, San Jose	12/4/2018
San Andreas Regional Center, Santa Clara County	12/21/2018
San Jose City College	12/12/2019
San Jose Downtown Residents Association	2/14/2019
San Martin/Gwinn K-8 School, San Martin	11/4/2019



Organization	Interview Date
San Martin Lions Club	2/19/2019
Santa Clara County Department of Family and Children's Services	12/18/2019
Santa Clara County Office of Education, Head Start	1/8/2019
Santa Clara County Office of Immigrant Relations	2/6/2019, 2/28/2019
Santa Clara County Office of Supportive Housing	10/31/2018
Santa Clara County Social Services	11/14/2018
Santa Maria Urban Ministry, San Jose	11/12/2018
St. Joseph's Family Center, Gilroy and San Martin	4/22/2019
St. Mary Parish, Gilroy	11/9/2018
The Cordoba Center: South Valley Islamic Community, San Martin	11/29/2018
Univision, San Francisco Bay Area	12/9/2019; 12/13/2019
UStar Productions, San Jose	9/10/2019; 10/4/2019
Vietnamese Voluntary Organization (VIVO), San Jose	11/15/2018
Volta Elementary School, Volta/Los Banos	12/10/2018; 12/19/2019
West Valley Community Services, San Jose	2/12/2019

Between November 2019 and April 2020, the Authority conducted 52 stakeholder/service provider interviews (Table 5-15). Table 5-14 identifies the stakeholders that were interviewed in 2018 and 2019. Outreach conducted between April 2020 and November 2020 was related to the community improvements process and is detailed in Table 5-16. The Authority conducted no stakeholder/service provider interviews between November 2020 and April 2021.

Table 5-15 Interviews with Stakeholder Organizations Conducted between November 2019 and April 2020

Organization	Interview Date
San Martin/Gwinn K-8 Academy	11/4/2019
Better Tomorrow	11/6/2019
Morgan Hill Unified School District	11/20/2019
Rocca's Market	11/20/2019
Maple Leaf RV Park	11/20/2019
HomeSafe/Charities Housing	12/9/2019
Univision	12/9/2019, 12/13/2019
San Jose City College	12/12/2019
La Raza Radio	12/13/2019
Charities Housing	12/16/2019
Next Door Solutions	12/17/2019
Santa Clara County Family & Children Services	12/18/2019



Organization	Interview Date
Volta Elementary	12/19/2019
Gilroy Unified School District	12/19/2019
Los Banos Community Center	12/20/2019
West Valley Community Services	1/8/2020
Morgan Hill Unified School District & CARE	1/15/2020
Gilroy High School	1/15/2020
City of Morgan Hill	1/15/2020
Gavilan College	1/15/2020
Santa Clara Unified School District	1/16/2020
Sacred Heart Nativity	1/16/2020
Family & Children's Services of Silicon Valley, County of Santa Clara	1/17/2020
Guadalupe-Washington Safety Coalition	1/22/2020
San Jose City College	1/23/2020
African American Community Services Agency	1/23/2020
Go Kids (formerly Estrella Family Services)	1/23/2020
San Jose Unified School District	1/23/2020
San Jose Unified School District	1/28/2020
Los Banos Unified School District	1/29/2020
Rocketship Public Schools	1/29/2020
East Side Union High School District	1/30/2020
Voices Charter Academy	1/30/2020
City of San Jose Parks/Trails	2/3/2020
Homeless Service Providers	2/6/2020
Oak Grove Elementary School District	2/6/2020
Washington Elementary	2/6/2020
Council on American Islamic Relations (CAIR)	2/7/2020
San Jose Word of Faith Christian Center Board	2/7/2020
ICAN Family Resource Center	2/7/2020
NextDoor Solutions	2/10/2020
Mission College	2/10/2020
Center for Employment Training (CET)	2/20/2020
Rocketship Mateo Sheedy Elementary	2/26/2020
Next Door Solutions/Home Safe	2/26/2020
HomeFirst Service Area Assessment	2/27/2020
South Bay Islamic Association (SBIA)	2/28/2020



Organization	Interview Date
Tamien Community Organizer	3/10/2020
Vietnamese American Round Table	3/12/2020
Vietnamese Voluntary Foundation	3/12/2020

Engagement through Coordination with Community Working Groups

The Authority also convened community working groups (CWG) to discuss and gather input on project alternatives with community members representing a broad range of local interests. Each of the CWGs includes representatives of minority communities and low-income communities in the environmental justice RSA.

As the Authority expanded environmental justice outreach efforts in 2018 and 2019, Authority staff coordinated with CWG members on how to best engage with minority populations and low-income populations in their communities. The topic of coordination served as a discussion prompt at some CWG meetings, and CWG members offered advice on coordination partners or advocated for activities and events to be conducted in specific neighborhoods.

As a result of this input, Authority staff worked closely with CWG members representing specific population groups to collaborate on environmental justice outreach activities targeting minority populations and low-income populations. For example, in San Jose, a CWG member facilitated the door-to-door canvassing and scheduling of a community meeting in the Gardner neighborhood. Another CWG member organized a meeting with representatives from the Vietnamese community.

To ensure CWGs reflect the diversity of stakeholders in the region, the Authority continues to add new CWG members by inviting contacts established through the environmental justice outreach process. As Authority staff engage with stakeholder organizations representing minority, low-income, and other marginalized populations, leaders of these organizations are invited to join the CWGs. CWG meetings continued in 2020, allowing for review and coordination of the Draft EIR/EIS and 2020 Business Plan (Authority 2021a). While the Authority convened several CWGs along the San Jose to Merced Project Section after the release of the Draft EIR/EIS in April 2020 and through April 2021, these meetings were not focused on environmental justice topics, nor did they target environmental justice communities. Refer to Appendix 5-B, Attachment C, in Volume 2.

5.5.4 Environmental Justice Community Improvements Outreach

Community engagement is at the core of USEO 12898 to make sure that the voice of those communities that would be affected by a project are included in the decisions made on the project as well as any community improvements that are proposed to offset disproportionately high and adverse effects on low-income populations and minority populations. As such, the Authority has engaged in an extensive outreach effort to minority populations and low-income populations throughout the process of developing the HSR program, identifying alignments, evaluating effects, and proposing direct mitigation and offsetting mitigation (e.g., community improvements that help to offset disproportionately high and adverse effects). Once disproportionately high and adverse effects were identified in the Draft EIR/EIS, the Authority developed a process to reengage low-income populations and minority populations, community representatives, and elected officials to ensure that community improvements the Authority considered as offsetting mitigation would benefit the affected low-income populations and minority populations.

5.5.4.1 Community Improvement Outreach, Phase One

Outreach Phase One occurred from December 2019 through March 2020 and consisted of stakeholder interviews, community meetings, and focus groups and a total of 44 meetings. Three of these meetings were held in Spanish for Oak Grove High School, Gardner Elementary School, and Madre a Madre. During Phase One, the Authority also met with Vietnamese community-



based organization representatives. The Authority also received requests for and provided Vietnamese-translated materials that the community-based organization representatives distributed to their members and community. During this engagement, the Authority solicited input for potential improvement concepts to be considered, sought and received feedback on the evaluation criteria for how improvements would be screened and identified potential partner agencies or entities that would be involved with implementing each improvement concept.

Presentations were made between December 2019 and March 2020 to a multitude of local minority community organizations and low-income community organizations, including community-based service providers, school leaders, community groups, neighborhood associations, churches and other faith-based organizations, and community leaders and representatives, along with public agency representatives. Participants were identified from the stakeholder database, and additional outreach was added as initial contacts led to subsequent and new contacts. The goals of this first phase of outreach were as follows:

- Expand the Authority's understanding of the needs of minority populations and low-income populations.
- Promote understanding of the environmental justice analysis and the process.
- Gather minority community and low-income community ideas for improvements.
- Obtain feedback on the initial list of improvements.

Outreach during this phase included gathering feedback from potential implementing partners (i.e., those entities potentially able to partner with the Authority to implement community improvements). Potential implementing partners included city and county departments, school districts, cross-jurisdictional agencies, municipalities, and a few selected community organizations across the affected communities.

This initial outreach, combined with research by the Authority on local community planning efforts (such as the Strong Neighborhoods Initiative in San Jose) and input from prior Authority-led Connecting Communities Strategy, yielded a list of over 200 initial improvement concepts that the Authority then refined through evaluation. Approximately 100 improvement concepts that appeared to best fit the improvement definition were then selected for detailed evaluations, which the Authority completed between April 2020 and July 2020.

5.5.4.2 Community Improvements Outreach, Phase Two

After completing the initial screening and evaluation of the improvement concepts and ideas gathered during Community Improvements Outreach, Phase One, the Authority undertook a second phase of outreach to gather feedback from potential implementing partners on specific improvements to ensure that the improvement profiles correctly represented the input gathered during Phase One and to collect any additional information pertinent to the potential improvements.

Community Improvements Outreach, Phase Two occurred from July 2020 to August 2020 with potential implementing partners. Implementing partners are jurisdictions, agencies (e.g., school districts), and other organizations who would be the entities working with the Authority to implement specific community improvements. The Authority shared the evaluation of the improvements advanced for detailed evaluations with potential implementing partners through a series of 12 meetings, as well as follow-up email and phone communications. The potential partners provided input on the improvements that were a priority for them, the methodology being used for the evaluation, the description of the improvements, and in some cases new concepts for improvements.

Local jurisdictions and agencies and certain other nongovernmental organizations were presented with the improvement profiles pertinent to their communities, jurisdictions, or areas of focus, along with the preliminary scoring and evaluation of each improvement. Table 5-16 indicates the jurisdictions, agencies, and groups with whom the Authority met virtually between April and October 2020.



Table 5-16 Stakeholder/Service Provider Community Improvements Meetings Conducted between April 2020 and October 2020

Organization	Meeting Date
Muslim Community Association	4/10/2020
Morgan Hill Unified School District	7/20/2020
City of Morgan Hill	7/22/2020
Santa Clara County Parks & Recreation Department	7/23/2020
Rebekah Children's Services	7/24/2020
African American Community Service Agency	7/27/2020
Gavilan College	7/27/2020
City of Gilroy	7/28/2020
City of Santa Clara	7/28/2020
Los Banos Unified School District	7/29/2020
Gilroy Unified School District	7/29/2020
Center for Employment Training (CET)	7/30/2020
City of San Jose & San Jose Department of Parks & Recreation	7/30/2020
Santa Clara Valley Transportation Authority	7/30/2020
Homeless Service Providers	7/31/2020
San Jose Unified School District	7/31/2020

Feedback gathered during Phase Two was incorporated into the revised analysis of potential community improvements.

5.5.5 Issues and Concerns

The Authority and FRA engaged, and the Authority continues to engage, extensively with stakeholders on the project beginning with scoping in 2009 for the San Jose to Merced Project Section and continuing through preparation of this Final EIR/EIS. A number of meetings were held throughout the project public engagement process to solicit community input and concerns regarding the potential effects of the project on minority populations and low-income populations. Authority staff also attended community functions, such as farmers' markets and neighborhood association meetings, to inform the community about the project and learn about their concerns. At these gatherings, a variety of stakeholders provided comments on a wide range of issues and expressed opinions regarding the selection of the project alternatives.

5.5.5.1 Key Issues Raised by Stakeholders Prior to Publication of the Draft EIR/EIS

The following issues and concerns were recurring in areas with minority populations and low-income populations:

 HSR alignments—Participants provided input on how different project alternatives would avoid or adversely affect different neighborhoods and communities. Additional alignment preferences, such as an at-grade alignment through downtown San Jose, an alignment along US 101, or an alignment predominantly in trench, tunnel, or along existing rail tracks were suggested to minimize property impacts and community displacements.



- Vertical profile—Participants noted preferences for different vertical profiles and structure types for each project alternative. For example, residents noted that retained or elevated viaducts would reduce property acquisitions related to sloped embankments. Some stakeholders expressed preference for the aerial option approaching San Jose Diridon Station as a means of reducing potential noise and traffic effects, while others raised concerns regarding aesthetic changes and loss of privacy caused by aerial structures. Some San Jose participants suggested that the Authority consider "active uses" for underpasses of aerial structures, with the potential to provide community benefits and prevent homeless encampments.
- Project-related noise—Participants noted concerns about operation and constructionrelated noise impacts and asked about the location of noise barriers. Noise was raised as a
 key concern in most of the communities along the project, and was particularly important to
 residents in San Jose, who already experience noise effects because of Caltrain operations
 and the Norman Y. Mineta San Jose International Airport.
- Traffic and transportation—Participants noted concerns about traffic congestion resulting from project construction and operations. These concerns were raised most frequently in Santa Clara and San Jose, communities most affected by current commute traffic conditions. In San Jose, the primary traffic concern was associated with the lane reduction of Monterey Road, and resulting delays and diversion of local traffic. In Los Banos, community members reported the project construction and operations impacts were of most concern for the Volta Elementary School community. As there are only two access roads (e.g., Ingomar Grade and Henry Miller Avenue) for families to access the school, any road closures would disrupt school attendance and access to emergency services and any noise or other operations-related effects would interfere with the learning environment.
- Safety and security—Universally, participants raised concerns regarding safety associated
 with train speeds, road crossings, and pollution. In San Jose and Gilroy, particular concern
 was expressed with regard to the safety of school children crossing the respective sections of
 Monterey Road; some individuals expressed the need for additional safety precautions.
 Issues of safety and security were also a concern for communities in the context of increased
 homeless encampments and illicit activities around the tracks and station areas. In many
 instances, there was concern for safety of families crossing tracks to access community and
 health services.
- Aesthetic effects—Participants, particularly those in San Jose, noted concern about visually dominant project elements and potential for graffiti on facilities, aerial structures, and noise barriers
- Community cohesion and connectivity—Participants in the Newhall neighborhood of Santa Clara, the Willow Glen, Gardner, Edenvale, and Delmas Park neighborhoods of San Jose, Morgan Hill, and Gilroy expressed concern that the project alignment would erode community cohesion and connectivity, as well as the existing community character.
- Community resources—San Jose residents voiced concern regarding effects on community resources, such as the segmentation and accessibility of parks and trails, including Fuller Park and Los Gatos Creek Trail, and noise effects at Gardner Elementary School. Residents in Morgan Hill and Gilroy were interested in property effects on schools located in minority areas and low-income areas within the environmental justice RSA (including the Charter School of Morgan Hill, Gilroy Preparatory School [a public charter school in the Gilroy Unified School District with both minority student percentages and low-income student percentages higher than the reference community], and South Valley Middle School). Residents in Gilroy were also concerned about potential effects of project-induced growth on Gilroy schools. Some Gilroy residents were concerned with effects on downtown Gilroy's historic district (under Alternatives 1 and 2), while others were concerned with effects on historic resources in Old Gilroy (under Alternative 3).



- **Displacements**—Participants voiced concerns related to the number and type of residential displacements, particularly in San Jose, Morgan Hill, and Gilroy. Participants raised concerns regarding the displacement of low-income rental housing, particularly in Gilroy and Morgan Hill, and the ability of low-income or unemployed community members who rent their housing to relocate if affected by HSR. Others expressed concern about whether adequate replacement housing and other zoned properties exist to relocate those affected. The Gilroy community is particularly concerned about the Alternatives 1 and 2 impacts of complete displacement of schools, community and health resources and city facilities on IOOF Avenue, off of Monterey Road. The community has made efforts to find real estate to relocate the schools, resources, and facilities and was unable to find suitable locations.
- Affordable housing—Gilroy and San Jose participants raised concerns regarding the effect
 of HSR on housing prices in the vicinity of stations and encouraged the Authority to adopt
 policies that protect and advocate for affordable housing in station areas.
- Gilroy station location options—Some Gilroy area residents were concerned with potential
 urban sprawl and induced-growth associated with a station in east Gilroy, which would have
 the potential to change the community character in the station area.
- Construction effects on downtown Gilroy businesses—A key concern raised by community members in downtown Gilroy was that construction effects would result in negative effects on the operation and margins of businesses in downtown Gilroy.
- **Property values**—Participants in all communities expressed concerns regarding project effects on property values and appropriate relocation compensation.
- Agricultural business and employment effects—Participants in unincorporated Santa Clara and Merced Counties expressed concern regarding the loss of useable farmland, parcel severance, and effects on farm operations and infrastructure (e.g., wells and irrigation systems). Concern was also expressed for the corresponding loss of agricultural employment opportunities because of the projects' effects on agriculture.
- Cumulative neighborhood effects—Participants expressed concerns over neighborhoods that have been historically affected by other transportation projects (e.g., the Gardner and Auzerais/Josefa neighborhoods and the construction of I-880 and US 101 freeways and subsequent widening; and the Silver Leaf and Sunspring neighborhoods, which are bordered by the Caltrain/Union Pacific Railroad (UPRR) railway and US 101). Morgan Hill participants expressed concern that the safety, noise, access to transportation and services and other impacts on the City's priority development areas or affordable housing projects built around the existing Caltrain station, greatly outweigh the benefits that the project would offer the community given that there is no station. This is especially the case for the Morgan Hill community as one of the eligibility criteria for residents of Morgan Hill's priority development areas is that they are a no-vehicle household and are wholly reliant on public transportation for their mobility.

5.5.5.2 Key Issues Raised in Comments on the Draft EIR/EIS

The following issues and concerns were recurring in areas with minority populations and low-income populations⁶ in greater proportion than in the reference community, after the public had an opportunity to review the Draft EIR/EIS:

- **Project Timeline/Sequencing/Process** Interest in the project timeline (e.g., alternative selection, implementation, and project phases).
- Displacement/Property Impacts
 - Concern about the loss of homes, parks, and churches to the project.

⁶ Where a specific community is not identified in the following list, the concerns were shared amongst minority populations and low-income populations in the resource study area.



- Interest in understanding the property acquisition process and options that owners have.
- Concern that displacement challenges would hit lowest income families the hardest.
- Concern that property owned by the Authority and neighbors would be tagged and lead to heightened gang activity.

Coordination with External Agencies and Organizations

- Recommendation for the Authority to partner with local community-based organizations, such as homeless response teams and Complete Streets programs.
- Recommendation for the Authority to partner with community members on beautification efforts (e.g., tree planting).
- Interest in the relationship and coordinating logistics between the Authority and other transportation providers, especially UPRR and Caltrain.
- Funding Interest in understanding how the project moves forward while funding is still pending.

Noise/Vibration

- Concern regarding noise and vibration impacts of train operation and construction.
- Interest in approaches to and effectiveness of noise direct mitigation.
- Concern regarding potential repetition of past transportation projects' unfulfilled promises to produce sound walls.
- Train Stations Concern regarding traffic congestion and availability of parking near stations in San Jose and Gilroy.

Traffic

- Interest in potential project outcomes that would lead to reduced traffic congestion.
- Concern about increased traffic impacts on safety and accessibility.

Mitigation Measures

- Concern about effects unable to be mitigated (e.g., displacement, environmental degradation).
- Interest in understanding mitigation timeline, requirements, and process.
- Concern, based on reported past experience with other agencies, that Authority may plan but not deliver mitigation.

Environmental Enhancements

- Interest in community improvements (e.g., traffic calming features such as pedestrian crossing signs, crosswalks, and bike lanes; freeway ramps; fences; playgrounds; school improvements; parks; riverside paths).
- Concern that project impacts and enhancements benefits cannot fully be understood when projects in the vicinity are still being planned.
- Concern that there would be unintended consequences of enhancements (i.e., new surface could be used to spray paint graffiti (i.e., "tag") which could result in heightened gang activity due to the use of tagging to define gang territory).
- Concern about criteria used to define "environmental justice" communities along the alignment.

Project Benefits and Equity

- Concern that the environmental process does not necessarily focus on prioritizing communities and protecting the interests of residents.
- Interest in project benefits, especially improved air quality, access to lower-cost housing, traffic reduction, job access, and the connection of families.

Community Cohesion/Separation/Connectedness



- Concern about community isolation.
- Interest in project benefit of increased mobility that would keep families connected.

Public Awareness/Outreach Engagement

- Concern regarding a perceived lack of responsiveness by the Authority to community concerns.
- Concern regarding the community's lack of awareness or limited knowledge about the project.
- Interest in learning about commuter fares, requirements to ride (i.e., identification), and train schedules and volumes.
- Interest in the activities and logistics (e.g., open houses, access for those with technological constraints) and methods for engaging stakeholders for the Draft EIR/EIS comment period.

Safety

- Interest in collaborating with homeless response teams to abate the homeless population and activities along the tracks.
- Concern regarding emergency vehicle response times and ensuring public safety personnel would have direct access to communities.
- Interest in developing and maintaining safety features (e.g., grade separations, pedestrian overcrossings, traffic safety, pedestrian crossing signs and lights, secure fencing around tracks, lights near new structures).

Alternatives

- Interest expressed for underground alternatives in San Jose, Morgan Hill, and Gilroy.
- Interest in understanding cost differences and displacement effects of each alternative.

For more information about these public engagement meetings and activities, see Appendix 5-B, Attachment C, Biannual Environmental Justice Outreach Reports, in Volume 2, which contains twice-yearly reports summarizing these meetings.

5.5.6 Environmental Justice Engagement September 2021

After Community Improvements Outreach, Phase Two and public review of the Draft EIR/EIS, the community improvements process was paused to consider what additional direct and offsetting mitigation could be incorporated into the EIR/EIS to avoid or minimize disproportionately high and adverse effects, to consider comments on the Draft EIR/EIS, and to conduct a more thorough analysis of the effects of project benefits. Subsequent to this additional analysis, the list of potential community improvements under consideration as offsetting mitigation was refined to include those community improvements with a reasonable nexus to the residual disproportionately high and adverse effects of the project that would remain after application of additional mitigation and consideration of project benefits.

In September 2021, the Authority conducted a total of 26 virtual meetings with implementing partners, community organizations, interested parties, and other stakeholders in eight communities within the San Jose to Merced Project Section, including: Santa Clara/North San Jose; San Jose Diridon; Gardner/North Willow Glen; Guadalupe, Washington, Tamien, Alma, Almaden; South San Jose; Morgan Hill; Gilroy, and the San Joaquin Valley. These are the communities where the EIR/EIS analysis had indicated that low-income populations and minority populations may be subject to disproportionately high and adverse effects from the project alternatives. Generally, the objectives of these meetings were to:

- Explain the updated environmental justice analysis for the EIR/EIS, including updated and new direct mitigation, consideration of benefits, and potential community improvements under consideration as offsetting mitigation.
- Share preliminary conclusions related to the updated environmental justice analysis.



 Gain feedback on the updated environmental justice analysis, preliminary conclusions, and potential community improvements.

The Authority classified stakeholders engaged into three general categories: (1) Implementing Partners, described as jurisdictions, agencies (e.g., school districts), and other organizations who would be the entities working with the Authority to implement specific improvements; (2) Community Stakeholders, described as community service providers, organizations, and members who have an interest in the updated environmental justice analysis; and (3) Interested Parties and Other Stakeholders within each of the affected communities to share and discuss the analysis and provide an opportunity for feedback.

The Authority communicated closely with Partners, Stakeholders, Interested Parties and others before the meeting series, sharing flyers, accommodation surveys, and proposed content. The various parties were all provided a community-specific and comprehensive packet of materials on or about September 3, 2021 related to the environmental justice analysis, including:

- Community Survey
- Environmental Justice Analysis Process Summary
- Summary of Updates to the EIR/EIS Environmental Justice Analysis
- Environmental Justice Community Summary
- Meeting Agenda and Presentation

These materials were provided in English, Spanish and Vietnamese and were Americans with Disabilities Act-compliant. The Authority requested all recipients review the materials and provide feedback via electronic survey, letter, or other written form by October 1, 2021. The feedback gathered during this phase has been evaluated and incorporated into the Final EIR/EIS.

Table 5-17 Stakeholder/Service Provider Community Improvements Meetings Conducted in September 2021

Organization	Meeting Date
City of Morgan Hill, Implementing Partner Meeting	9/7/2021
Los Banos Unified School District, Implementing Partner Meeting	9/8/2021
Gilroy Unified School District, Implementing Partner Meeting	9/8/2021
City of San Jose, Implementing Partner Meeting	9/9/2021
City of Gilroy, Implementing Partner Meeting	9/10/2021
Rocketship Schools Meeting, Other Interested Party Meeting	9/13/2021
African American Community Services Agency, Other Interested Party Meeting	9/13/2021
Guadalupe Washington Community Meeting	9/13/2021
City of Santa Clara, Implementing Partner Meeting	9/14/2021
Gardner Community Meeting	9/14/2021
Santa Clara County Agencies, Interested Parties	9/15/2021
Santa Clara Community Meeting	9/15/2021
San Jose Unified School District, Implementing Partner Meeting	9/16/2021
Gavilan College, Other Interested Party Meeting	9/16/2021
Franklin McKinley School District, Other Interested Party Meeting	9/17/2021
San Jose Diridon Community Meeting	9/20/2021
Morgan Hill Community Meeting	9/21/2021



Organization	Meeting Date
Los Banos Community Meeting	9/22/2021
Santa Clara County Office of Supportive Housing/Homeless Services, Implementing Partner Meeting	9/22/2021
Sacred Heart, Other Interested Party Meeting	9/23/2021
Oak Grove School District, Other Interested Party Meeting	9/23/2021
South San Jose Community Meeting	9/23/2021
Rebekah Children's Services, Implementing Partner Meeting	9/24/2021
Center for Employment Training (CET), Other Interested Party Meeting	9/28/2021
Gilroy Community Meeting	9/28/2021
Morgan Hill Unified School, Interested Parties Meeting	9/29/2021

The following is a high-level summary of key themes from the community feedback:

Impacts of concern

- In the outreach community survey, impacts of concern were rated on a 5-point scale (not concerned, slightly concerned, somewhat concerned, moderately concerned, very concerned).
- On average⁷, respondents to the outreach survey identified project impacts as being
 moderately concerning (construction and operational traffic, bus transit delay, residential
 displacements, emergency vehicle response delays, operational noise), and a few project
 impacts were on average identified as being somewhat concerning (visual aesthetics,
 commercial displacements, and partial acquisition of park/play areas).
- The highest rated impact of concern was traffic delay during construction.
- The lowest rated impact of concern was visual aesthetics (which scored 3.1 on a 5-point scale).

Value of project benefits

- In the outreach survey, benefits were rated on a 5-point scale (not beneficial, slightly beneficial, somewhat beneficial, moderately beneficial, very beneficial).
- On average⁸, respondents to the outreach survey identified project benefits as moderately beneficial for most highlighted benefits in the survey (train travel; access to jobs, goods, and services; integration with transit; reduction of highway traffic; upgrades to railroad safety and signaling systems; reduced air pollution and greenhouse gas emissions; construction and operational spending and employment; and support for transit-oriented development near stations), with one benefit (reduced need for airport and highway expansion) rated as somewhat beneficial.
- The highest rated benefits for agency respondents were reduced air pollution and greenhouse gas emissions (with average scores of 4.0 and 4.1 on a 5-point scale, respectively). The highest rated benefits for individual respondents were travel by high-

⁷ Using the 5-point scale, agency respondents average scores for individual project impacts between 2.89 and 3.63 with an average of 3.33 for all impacts, individual respondents average scores were between 3.0 and 4.5 with an average of 3.81 for all impacts. These results are between 3 (somewhat concerned) and 4 (moderately concerned). See Appendix 5B, Attachment D for more information on the survey.

⁸ Using the 5-point scale, agency respondents average scores for individual project benefits between 3.21 and 4.07 with an average of 3.69 for all benefits, individual respondents average scores were between 3.5 and 4.67 with an average of 3.82 for all benefits. These results are between 3 (somewhat beneficial) and 4 (moderately beneficial). See Appendix 5B, Attachment D for more information on the survey.



- speed trail and access to jobs, goods, and services (with average scores of 4.67 and 4.33 on a 5-point scale, respectively).
- The lowest rated benefit was the reduced need for airport and highway expansion (with average score of 3.2 on a 5-point scale).
- Concurrence with environmental justice conclusions regarding disproportionately high and adverse effects that were presented
 - In the outreach survey, after application of direct mitigation only, slightly more respondents agreed, but half neither agreed nor disagreed, with the conclusions concerning disproportionately high and adverse effects presented in the updated EIR/EIS analysis. One respondent elaborated on their position:
 - The Gilroy Unified School District stated that the safety risks at crossings due to the high speed of the train remain disproportionately high and adverse for students and elderly community members even after application of the quad gates, other project safety measures, and site-specific traffic mitigation measures. The district supported the site-specific traffic mitigation measures in and of themselves, though they did not fully address the safety issues for the schools without the potential community improvement pedestrian/bike overcrossing at IOOF Avenue. 10
 - In the outreach survey, after application of direct mitigation, benefits, and community improvements (e.g., offsetting mitigation), more respondents agreed than disagreed with the conclusions in the updated EIR/EIS analysis, but many neither agreed nor disagreed or skipped the question. 11 Several respondents elaborated on their positions:
 - The City of Morgan Hill stated that Alternative 4 will have safety impacts to emergency vehicle response times caused by traffic delay or road closures, that the noise treatments for residences along US 101 would not help offset noise effects along the downtown alignment of Alternative 4, and that the proposed community benefits are not addressing the main concerns the community has. 12
 - The City of San Jose concurred with the community noise improvements for the four communities in San Jose and requested the Authority work with existing community organizations to do outreach to the most disadvantaged residents to assist them in applying for and receiving noise insulation improvements.
 - The City of San Jose stated that they think the site-specific traffic mitigation related to noise, traffic, and emergency vehicle response delays did not fully address cumulative effects, which they opined could only be adequately addressed through grade separations at the five at-grade crossings in San Jose. 13

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⁹ In the community survey, of the 17 respondents who answered this question, five agreed, three disagreed, and nine neither agreed nor disagreed.

¹⁰ The pedestrian/bike overcrossing at IOOF Avenue is proposed as a community improvement, as discussed in Section 5.8, Community Improvements.

¹¹ In the community survey, of the 11 respondents who answered this question, seven agreed, none disagreed, and four neither agreed nor disagreed.

¹² As discussed in Final EIR/EIS Section 3.11, Safety and Security, and as discussed in Section 5.6.3.2, the emergency vehicle response delay effects in Morgan Hill are not in environmental justice community areas but in the southern part of Morgan Hill along Middle Avenue that does not have a greater percentage of minority or low-income populations than the reference community. In addition, the City of Morgan Hill suggested that the Authority should include grade separations to address traffic, safety, and noise effects, but, as discussed in Volume 2, Appendix 5-C, and in Volume 4, Standard Responses, grade separations are not considered practicable due to cost.

¹³ As discussed in Volume 2, Appendix 5C, and in Volume 4, Responses to Comments on the Draft Environmental Impact Report/Environmental Impact Statement and Revised/Supplemental Draft Environmental Impact Report/Environmental Impact Statement, Chapter 17, Standard Responses, grade separations are not considered practicable due to cost.



- Concurrence on traffic impacts addressed by traffic mitigation
 - After application of site-specific traffic mitigation only, approximately half of the respondents disagreed, a few agreed, and the rest neither agreed nor disagreed with the impact conclusions presented in the updated EIR/EIS analysis.
 - The City of Morgan Hill specifically questioned why no community improvements were proposed for traffic and disagreed that traffic effects would be offset by project transportation benefits.
 - Morgan Hill Unified School District said that the addition of HSR trains will increase school bus travel times.
 - The City of Gilroy noted that additional trains will create a significant amount of gatedown time.
- Agreement with the potential list of community improvements or other improvements proposed
 - Twelve respondents proposed different community improvements than the ones on the list of potential improvements under consideration at the time of the September 2021 outreach. One respondent elaborated on the reason they disagreed with the potential improvement and why their proposed improvement would best serve their community's interest:
 - Oak Grove School District in San Jose asserted that an improvement to their recreational facilities, an important community hub, would be of greater and longerterm benefit to the school community and the public in that area than the proposed noise treatments at individual residences.¹⁴
 - A summary of the alternative community improvements proposed by community members or agencies and why they were suggested is provided in Appendix 5-B, Attachment D, Environmental Justice Outreach, September 2021, in Volume 2.
- Other general comments on implementation of community improvements
 - One community organization, the African American Community Services Association urged the Authority to think about who is getting hurt the most when projects like this take place. This same organization urged the Authority to consider actionable/sustainable improvements that can be made to show that the Authority understands and listens to what the community actually wants.¹⁵
 - The City of Gilroy stated they would like to see some of these improvements implemented sooner, prior to construction of the HSR facilities.

For more information about these public engagement meetings and activities, see Appendix 5-B, Attachment D, Environmental Justice Outreach, September 2021, in Volume 2, which provides further description of meetings, description of input provided during this period, and copies of the outreach materials, comments submitted, copies of the outreach survey, and survey results.

5.6 Assessment of Effects

5.6.1 Overview

This section summarizes potential adverse effects of the No Project Alternative and the project alternatives on human health and environmental resources by alternative and project component. Analysts mapped the locations of adverse effects of the project in relation to concentrations of

¹⁴ The improvement to the Caroline Davis Intermediate School turf and track is proposed as a community improvement, as discussed in Section 5.8, Community Improvements.

¹⁵ The African American Community Services Association recommended that the Authority should fund the reestablishment of the Inez Jackson Library (a collection of civil rights information and research) at the African American Community Services Association community center in San Jose. This improvement is proposed as a community improvement, as discussed in Section 5.8, Community Improvements.



minority populations and low-income populations and assessed whether the available direct mitigation measures addressed concerns raised by minority populations and low-income populations during the engagement process. After considering the totality of the adverse effects, project beneficial effects, cumulative effects, and the perceptions of the minority populations and low-income populations, the Authority determined whether the effects would result in a disproportionately high and adverse effect on minority populations and low-income populations or if these adverse effects were of a disproportionately high magnitude in areas with minority populations and low-income populations and low-income populations and low-income populations.

5.6.2 No Project Alternative

The population in Santa Clara, San Benito, and Merced Counties and communities is expected to grow substantially by 2040 (see Section 2.6.1.1, Projections Used in Planning). Development to accommodate the population increase would continue under the No Project Alternative and result in associated direct and indirect effects on the resident populations, including minority populations and low-income populations. Such planned projects anticipated to be constructed by 2040 include office, residential, commercial, industrial, recreational, transportation, and agricultural projects. These projects would occur throughout Santa Clara, San Benito, and Merced Counties, which have 23.3, 12.1, and 25.6 percent low-income populations and 62.8, 60.8, and 67.8 percent minority populations, respectively (U.S. Census Bureau ACS 2010–2014b, 2010–2014d). The effects on these populations would depend upon the location of these projects relative to the concentrations of minority populations and low-income populations.

Foreseeable future development projects in the three-county region include implementation of various types of development projects and land use plans, as well as implementation of general and specific plans. Planned projects that would occur under the No Project Alternative would also include transportation projects such as the reconstruction of interchanges, and overcrossing construction, or development projects such as residential, commercial, and industrial developments. Section 3.19, Cumulative Impacts, and the Appendices 3.19-A, Cumulative Nontransportation Plans and Projects, and 3.19-B, Cumulative Transportation Projects, list foreseeable future development and transportation projects that could affect populations within the cities and counties through which the project travels.

Under the No Project Alternative, recent development trends are anticipated to continue, leading to temporary and permanent adverse or beneficial effects on minority populations and low-income populations as well as the population as a whole. Existing land would be converted for residential, commercial, and industrial development, and the transportation infrastructure to support the development. Adopted regional and local plans and policies guide development activities in a manner that encourages compact growth. Consequently, with or without the HSR project, much of the planned growth would be focused within or adjacent to urbanized areas of the RSA, including infill development. Conversion of existing land uses to transit-oriented development would be likely to occur in downtown San Jose and Gilroy with or without the HSR project because the *Diridon Station Area Plan* and the *Downtown Gilroy Specific Plan* encourage transit-oriented development (see Appendix 2-J).

Population growth and associated development pressures could result in disturbances to communities near construction activities, including minority populations and low-income populations, during temporary construction activities. Planned development and transportation projects that would occur as part of the No Project Alternative would likely include the implementation of various forms of mitigation to avoid or minimize potential effects on community and environmental resources that have the potential to affect human health, safety, and welfare.



5.6.3 Project Alternatives

As described in Chapter 3, construction and operation of the project alternatives would result in temporary and permanent adverse effects, as well as beneficial effects on environmental resources and populations, including minority populations and low-income populations. This environmental justice analysis focuses on the potential for adverse effects on health, safety, and the environment to adversely affect minority populations and low-income populations.

No further analysis was conducted for resource topics determined to have no adverse effects, adverse effects that would not affect minority populations and low-income populations, or resource topics for which mitigation measures were applied equally and effectively addressed community concerns. A brief summary of these resource topics is provided below.

No Adverse Effects on Minority Populations and Low-Income Populations

Project effects on the following resource topics were determined to have no adverse effects or adverse effects that would not affect minority populations and low-income populations: electromagnetic fields (EMF)/electromagnetic interference (EMI); geology, soils, seismicity, and paleontological resources; biological and aquatic resources; water quality; floodplains; station planning, land use, and development; agricultural farmland; cultural resources; property and sales tax revenue changes; and effects on school district funding.

Electromagnetic Frequency/Electromagnetic Interference

Construction and operation of the project alternatives would intermittently generate increased levels of EMF and EMI. As the EMF levels generated during construction and operations would be far below applicable health and safety standards, the general public and HSR employees would not be exposed to increased health risks (see Section 3.5, Electromagnetic Fields and Electromagnetic Interference). There would be no adverse effects on human health associated with increased exposure to EMF and EMI as a result of the project alternatives, and populations, including minority populations or low-income populations, would not be adversely affected.

Geology, Soils, Seismicity, and Paleontological Resources

Risks to human health and safety associated with encountering geologic hazards, unstable soil conditions, and seismic hazards during construction or project operation would be avoided through the standard construction practices (GEO-IAMF#1, Geologic Hazards; GEO-IAMF#2, Slope Monitoring; GEO-IAMF#3, Gas Monitoring; GEO-IAMF#4: Historic or Abandoned Mines; GEO-IAMF#5, Hazardous Minerals; GEO-IAMF#6, Ground Rupture Early Warning Systems; GEO-IAMF#7, Evaluate and Design for Large Seismic Ground Shaking; GEO-IAMF#8, Suspension of Operations During an Earthquake; GEO-IAMF#9, Subsidence Monitoring; and GEO-IAMF#10: Geology and Soils) including preparation of a construction management plan; monitoring for slope instability, subsurface gas and subsidence; installing seismic early warning systems; designing for earthquake loads; using motion sensors to shut down operations during or after an earthquake; and compliance with established engineering design guidelines and standards. Adverse effects on paleontological resources during construction would not occur because paleontological resource monitoring and direct mitigation (GEO-IAMF#11, Engage a Qualified Paleontological Resources Specialist; GEO-IAMF#12, Perform Final Design Review and Triggers Evaluation; GEO-IAMF#13, Prepare and Implement Paleontological Resources Monitoring and Mitigation Plan (PRMMP); GEO-IAMF#14, Provide WEAP Training for Paleontological Resources; and GEO-IAMF#15, Halt Construction, Evaluate, and Treat if Paleontological Resources Are Found) will occur in areas with high paleontological sensitivity and will allow for identification and salvage of fossils prior to and during construction (see Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources). Accordingly, no adverse effects associated with geology, soils, seismicity and paleontological resources would occur, and populations, including minority populations and low-income populations, would not be affected.

Biological and Aquatic Resources

Construction and operation of the project would result in temporary and permanent adverse effects on biological and aquatic resources, including effects on land cover, special-status



species, plants and habitat, non-special-status species wildlife and habitat, jurisdictional aquatic resources, protected trees, wildlife corridors, conservation areas, and habitat conservation plans (see Section 3.7, Biological and Aquatic Resources). While some adverse effects on biological and aquatic resources would occur during project construction and operations, the resources affected are not related to human health and are not relied upon as local subsistence food sources for minority populations and low-income populations. As a result, the project would not result in effects on biological and aquatic resources that would adversely affect the health of populations, including minority populations and low-income populations, or adversely affect critical environmental resources that these populations directly rely upon.

Water Quality

Construction activities such as grading, excavation, and dewatering would be conducted in accordance with a stormwater pollution prevention plan (SWPPP) that includes best management practices (BMP) effective at minimizing discharges of sediment from the construction site and managing construction equipment and materials to prevent leaks, spills, and accidental discharges to surface waterbodies (HYD-IAMF#3, Prepare and Implement a Construction Stormwater Pollution Prevention Plan). HSR stations and maintenance facilities would be designed to reduce the potential for discharging pollutants to surface waterbodies by performing mechanical maintenance indoors and using low-impact development measures to capture and treat potentially contaminated runoff. Operation and maintenance activities will be subject to a SWPPP and an operations and maintenance plan, which would further minimize water quality effects. Neither construction nor operations would not result in the violation a water quality standard or creation of a substantial new source of polluted runoff (see Section 3.8, Hydrology and Water Resources). There would be no adverse effects on water quality, and populations, including minority populations or low-income populations would not be adversely affected.

Floodplains

Alternative 3 would affect the hydraulics of the Llagas Creek floodplain near east Gilroy from the construction of a bridge that would include three piers within the regulatory floodway, one pier on the western levee, and limited channel widening to offset fill from piers. Preliminary hydraulic analysis revealed that the water surface elevations of the 100-year floodway of Llagas Creek would increase by approximately 0.4 foot even with limited channel widening.

The Authority would implement direct mitigation to reduce permanent impacts on the floodway of Llagas Creek near east Gilroy under Alternative 3. HYD-MM#2: Maintain Existing 100-year Water Surface Elevations of the Llagas Creek Floodway near Holsclaw Road in East Gilroy will require the proposed Llagas Creek bridge near Holsclaw Road near East Gilroy bridge to be designed and constructed to pass the 100-year flood without increasing water surface elevations. With implementation of direct mitigation, impacts on water surface elevations would not be adverse, and minority populations or low-income populations located within the environmental justice RSA would not be adversely affected by changes to floodplains.

Station Planning, Land Use, and Development

Construction of the project alternatives would require the permanent conversion of various amounts and types of land uses to transportation uses along the entire length of the project alternatives. In most locations, land acquisitions would represent small acquisitions along the entire alignment; however, the project alternatives would require the permanent acquisition and conversion of between 45.0 and 102.3 acres of residential property and between 14.8 and 91.6 acres of commercial property in the Morgan Hill and Gilroy Subsection. This conversion of land zoned for residential and commercial use into transportation use would alter land use patterns by substantially expanding transportation uses in the Morgan Hill and Gilroy Subsection. For the purposes of this analysis, alteration of land use patterns is not considered to have a direct adverse effect on populations, including minority populations and low-income populations, because it would not result in adverse effects on human health, safety, or welfare. Alteration of land use patterns, as it affects displacements and community cohesion is discussed below under the socioeconomics and communities discussion in Section 5.6.3.1, Construction Effects.



HSR stations can become a focal point of economic activity as public and private investment seeks to capture the travel benefits of increased intercity accessibility. Beneficial effects are anticipated in the areas surrounding the San Jose Diridon and Downtown Gilroy Stations because HSR service would attract a new market of intercity travelers and increased statewide accessibility to jobs, goods, and services. HSR station improvements would create new passenger throughput capacity, increase capacity for future travel demand, and expand travel capacity for future residential and employment growth.

Agricultural Farmland

Construction of the project would require the temporary and permanent conversion of agricultural land in rural areas along the alignment. For purposes of this analysis, conversion of agricultural land was not considered to have a direct adverse effect on populations, including minority populations and low-income populations, because it would not result in adverse effects on human health, safety, or welfare. However, the conversion of agricultural land would have adverse effects on the agricultural employment, which was a concern raised during environmental justice engagement. The project's effects on agricultural employment are discussed under the employment discussion in Section 5.6.3.1, Construction Impacts.

Cultural Resources

Construction of Alternatives 1 and 2 would require construction activity in proximity to the Gilroy/Grange Japanese School, which has an important historical association as a school and social hall for the prewar Gilroy Japanese community and the wartime loss of the building, which reflects the devastating effects of wartime incarceration on the Japanese-American community. Although alteration of the parcel would occur, the building would be protected by project features that include training construction staff to avoid or protect cultural resources during construction, preparing and implementing protection measures prior to construction, monitoring methods and process, and making sure that these plans are followed and that protection mechanisms are in place prior to the start of construction. As a result, no adverse effect on the Gilroy/Grange Japanese school, which may be culturally and historically important to minority populations, would occur.

Property and Sales Tax Revenue Changes

Property tax revenues would be reduced between 0.000001 and 0.000005 percent overall due to property acquisition for project construction. This level of change would not be high and adverse and would be realized at the scale of the county or city, so it would not affect minority populations or low-income populations disproportionately. Sales tax revenue increases from expenditures during construction and operations would be beneficial to local economies and would not adversely affect minority populations or low-income populations.

School District Funding

Reductions in property tax revenue from property acquisition and residential displacement that results in student relocations would reduce sources of funding for school districts. Reductions in school district funding are estimated at less than 1 percent (0.2 to 0.5 percent) of total annual school district funding sources and would not represent a source of high and adverse impacts on minority populations or low-income populations.

Adverse Effects on Minority Populations and Low-Income Populations Addressed through Direct Mitigation

Project effects associated with construction noise and vibration, temporary construction-related aesthetics and visual quality, public utilities and energy, and hazardous materials and wastes were determined to have adverse effects on populations, including minority populations and low-income populations, that were addressed through direct mitigation. For these resource topics, the proposed direct mitigation for project construction effects will be applied equally to minority populations and low-income populations and the general population as a whole, would either avoid or reduce adverse effects, and are responsive to the concerns raised during the environmental justice engagement process.



Construction Noise and Vibration

Noise from construction activities would temporarily exceed the FRA noise standards along the entire project corridor and adversely affect sensitive receptors (e.g., residences, schools, hospitals, and parks). Vibration from construction, including pile driving, would cause adverse effects on sensitive receptors in the area. The increase in noise and vibration would affect all communities near construction activities, including minority populations and low-income populations. These effects would be temporary during construction and would be reduced with implementation of Mitigation Measures NV-MM#1, Construction Noise Mitigation Measures, and NV-MM#2, Construction Vibration Mitigation Measures, as described in Section 3.4 of this Final EIR/EIS. These direct mitigation measures will be applied throughout the entire project corridor and will reduce construction noise and vibration below the FRA noise and vibration standards through noise monitoring and the avoidance of pile driving within 50 feet of buildings. These direct mitigation measures will address concerns raised during environmental justice engagement by reducing annoyance and disruption from construction noise and will establish a toll-free telephone hotline through which community members could raise questions or concerns about construction activities with the Authority. Because direct mitigation will reduce noise and vibration levels to acceptable levels, be applied equally throughout the project corridor, and will be responsive to the concerns raised during the environmental justice engagement process, construction of the project alternatives would not result in disproportionately high and adverse noise and vibration effects on minority populations and low-income populations.

Aesthetics and Visual Quality (Temporary Construction-Related)

Construction of the project alternatives in residential areas would include heavy equipment and vehicles, dust material, stockpiles, and staging areas, worker parking, and equipment and material storage areas. These activities would be present and visible to nearby viewers in residential areas, and thereby would affect visual quality and could result in temporary degradation of visual quality to residents. These effects on visual quality would be experienced by all communities near construction activities, including minority populations and low-income populations.

The Authority would implement direct mitigation measures to reduce the effects on residential views. AVQ-MM#1, Minimize Visual Disruption from Construction Activities, and AVQ-MM#2, Minimize Light Disturbance during Construction, will require that construction contractors employ measures, such as preserving existing vegetation to screen views and locating construction staging sites 500 feet from residential areas, to minimize visual disturbance and shield nighttime construction lighting, thereby maintaining existing visual quality as much as possible. These measures will reduce the area and scale of, and exposure to, adverse visual effects. These measures will apply equally to minority populations and low-income populations and the reference community as a whole and will address the concerns raised by minority populations and low-income populations during the environmental justice engagement process about construction-related effects on aesthetics and visual quality. As a result, project construction would not result in temporary aesthetics and visual quality effects that would result in disproportionately high and adverse effects on minority populations and low-income populations.

Public Utilities and Energy

Construction of the project alternatives could result in planned or accidental temporary interruption of utility service. These planned interruptions would not result in prolonged disruption of utility services, and construction of the project alternatives would not result in the loss of utility services, or reduced access to public utility lines.

Construction of the project alternatives would result in increased water use, increased waste generation, and increased energy consumption. The project alternatives would not require construction of new water supply capacity, or construction of new solid waste disposal capacity, or construction of new energy generation facilities or expansion of existing energy generation facilities that could otherwise result in secondary physical effects on the environment that could affect minority populations and low-income populations. As a result, construction of the project



alternatives would not result in disproportionately high and adverse on minority populations and low-income populations associated with public utilities and energy.

Hazardous Materials and Wastes

Construction activities would be similar throughout the project corridor and would involve the temporary transport, use, storage, and disposal of hazardous materials and wastes, which have the potential to result in accidental spills or releases at all locations near construction sites. Schools are particularly sensitive locations for the accidental release of hazardous materials due to the potential effects on children's health and safety. Schools within 0.25 mile of construction activities that could be at risk for hazardous waste spills are located in each adjacent community within the RSA. These schools are distributed among minority populations and low-income populations, as well as among non-minority populations and non-low-income populations. The application of Mitigation Measure HMW-MM#1, Limit Use of Extremely Hazardous Materials near Schools during Construction, will limit the transport of hazardous materials near any of these schools (see Section 3.10, Hazardous Materials and Wastes). Because direct mitigation will be applied equally to all schools within 0.25 of construction activities and will substantially reduce the risk of a hazardous materials spill, the project would not adversely affect populations, including minority populations and low-income populations.

5.6.3.1 Construction Impacts

As described in Chapter 3, construction of the project alternatives would result in temporary and permanent adverse effects on populations. This section evaluates the potential for these adverse effects to result in a disproportionately high and adverse effect on minority populations and low-income populations after the application of direct mitigation and the consideration of project benefits.

Transportation

Traffic

Construction of any of the project alternatives would affect major roadways due to temporary roadway and lane closures during construction and increased traffic associated with construction activities (e.g., heavy truck traffic and construction worker trips to and from the construction site). This would affect local circulation and access to community facilities along the entire length of the alignment, but adverse effects (NEPA effect only) would be experienced to the greatest extent within the Monterey Corridor Subsection in South San Jose, where Alternatives 1, 2, and 3 would narrow Monterey Road from six to four lanes between Capitol Expressway to Blossom Hill during construction and eliminate left turn movements from Monterey Road. During the approximately 18 to 24 months of construction, residents and travelers at peak hours within the Monterey Corridor Subsection would experience increased travel times, out-of-direction travel, intersection delay, and inconvenience due to construction traffic and temporary diversions. As discussed in Section 3.2, with Alternatives 1, 2, and 3, analysts estimated that residents of the Silverleaf and Sunspring neighborhoods east of Monterey Road between Blossom Hill Road and SR 85 would experience some trip duration increases of between 8 and 10 minutes due to the elimination of left turn lanes along Monterey Road. Construction of the Alternatives 1, 2 and 3 would also permanently reduce the capacity of Monterey Road, shifting trips from roadways to freeways, and resulting in increased congestion (NEPA effect only) at two freeway segments on US 101 in the Monterey Corridor Subsection, between SR 85 and Bernal Road. Under Alternative 4, Monterey Road would not be narrowed and no spillover effects on US 101 would occur.

A review of trip data indicates the vast majority of traffic along Monterey Road (approximately 90 percent) consists of local trips, rather than pass-throughs by commuters traveling long distances (Burton 2018), although local trips occur throughout the day, not necessarily at peak hours when the effects are felt. Construction-related transportation effects might be chiefly experienced by residents within the Monterey Corridor Subsection. However, there is no evidence that such peak-hour congestion, even if felt by local residents, would have the effect of isolating, excluding, or separating minority individuals or low-income individuals within a given community or from the broader community.



A traffic control plan implemented as part of the project during construction (TR-IAMF#2, Construction Transportation Plan) will assist with maintaining traffic flow during peak travel periods through the use of temporary signage to alert drivers to the construction zone, personnel operating flags or other methods of traffic control, traffic speed limitations, identification of construction traffic routes, and provisions to allow safe access to residences and business. Additional IAMFs that will address construction traffic effects include the following: TR-IAMF#1: Protection of Public Roadways during Construction; TR-IAMF#3: Off-Street Parking for Construction-Related Vehicles; TR-IAMF#6: Restriction on Construction Hours; TR-IAMF#7: Construction Truck Routes; and TR-IAMF#8: Construction during Special Events.

Substantial delays and level of service (LOS) degradation would also occur during construction at one intersection in Morgan Hill under Alternatives 1 and 3, four locations in Morgan Hill under Alternative 2, and two locations in Gilroy under Alternative 4. The delay at these locations would be site-specific, localized to the specific construction location, and the traffic control plan would be expected to control the construction period effects at these locations.

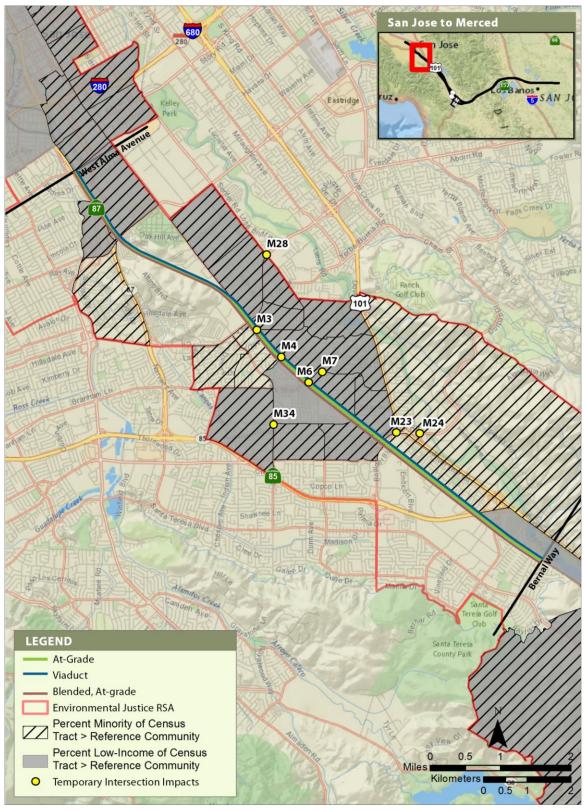
Mitigation Measure TR-MM#1a (Monterey Road Construction Modifications)¹⁶ will improve operations at Monterey Road intersections by optimizing road geometry, thereby reducing the project's impacts associated with the road narrowing with Alternatives 1, 2, and 3. This measure will minimize temporary construction effects on intersection operations, but substantial delays and LOS degradation will remain at eight intersections within the Monterey Corridor Subsection under Alternatives 1, 2, and 3, as illustrated on Figure 5-15. As a result, the concerns raised by minority populations and low-income populations in San Jose during the environmental justice engagement process about construction-related effects on traffic, particularly regarding the lane removal along Monterey Road and congestion during construction, would not be addressed through direct mitigation only for these alternatives.

Except along the Monterey Corridor with Alternatives 1, 2, and 3, adverse effects on traffic congestion associated with project construction would be minimized with the application of TR-IAMF#2 and the other IAMFs described above. Adverse effects associated with traffic congestion will still occur in South San Jose within the Monterey Corridor Subsection under Alternatives 1, 2, and 3 and would be unresolved through direct mitigation. Accordingly, these adverse effects would be predominantly borne by minority populations and low-income populations in the neighborhoods adjacent to Monterey Road in South San Jose and would be of greater magnitude than those experienced elsewhere in the environmental justice RSA by non-minority and non-low-income populations. As a result, construction-related transportation congestion for Alternatives 1, 2, and 3 would disproportionately affect minority populations and low-income populations in South San Jose before consideration of project benefits. With implementation of the transportation IAMFs, Alternative 4 would not have disproportionately high and adverse effects on minority populations and low-income populations during construction.

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¹⁶ Regarding site-specific traffic delay/congestion direct mitigation measures, see further discussion under Section 5.6.3.2 under the Transportation subsection.





Sources: U.S. Census Bureau ACS 2010–2014b, 2010–2014d; Appendix 3.2-A Note: The "M#" notations for intersection impacts are the intersection reference numbers.

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Figure 5-15 Adverse Transportation Effects during Construction (Alternatives 1, 2, and 3)



Transit

While demographic information on riders of transit and passenger rail within the project extent was not available for all affected service providers, the data reported by (Santa Clara) Valley Transportation Authority (VTA) indicates that transit ridership largely serves minority populations and low-income populations within Santa Clara County. According to a 2013 VTA On-Board Survey, VTA bus riders are predominantly low-income individuals with a median household income of \$42,800, racially and ethnically diverse with 77 percent of riders identifying as minority, and 28 percent have limited English proficiency (VTA 2014). In comparison, the reference community has a median household income of \$87,740, a population that is 63.4 percent minority, and 11.5 percent of the population have limited English proficiency (U.S. Census Bureau ACS 2010–2014c, 2010–2014d, 2010–2014f). While potential effects on transit services was not specifically raised as a community concern during environmental justice engagement, transit and passenger rail provide critical mobility services to low-income populations and other sensitive populations that have mobility limitations (e.g., elderly and disabled).

Construction of the HSR stations, platforms, and track alignment would require temporary closure of some transit stations, passenger rail stations and platforms, parking areas, or roadway lanes, resulting in increased travel time and the use of temporary facilities that may not have the same safety and accessibility features for transit and passenger rail riders. Alternatives 1, 2, and 3 would result in temporary road closures along bus routes that would result in bus transit delays.

While Alternative 4 would require temporary lane closures, it would not require full road closures along bus transit routes. As a result, project construction could temporarily degrade performance of the public transit system and passenger rail services within the San Jose Diridon Station, Monterey Corridor, and Morgan Hill and Gilroy Subsections, and at the existing San Jose Diridon Station and the Gilroy Stations under all four alternatives (although Alternative 4 would not result in bus transit delays due to road closures). This could result in disruption to VTA bus routes and light rail services, Caltrain, Altamont Corridor Express (ACE), Amtrak, and Capitol Corridor services, and could result in commuter inconvenience and possible diversion from transit/passenger rail to other commute modes during the 7-year construction period.

A traffic control plan (TR-IAMF#2) and a construction management plan (CMP) for maintenance of transit access (TR-IAMF#11, Maintenance of Transit Access) will minimize disruption to bus transit and passenger rail service during construction by maintaining safe and adequate transit access during construction, providing signage for temporary transit facilities, and minimizing transit schedule disruptions. The Authority would implement TR-MM#2 to reduce the impacts on bus transit operations. This direct mitigation measure will improve bus transit operations on Monterey Road (Alternatives 1, 2, and 3) and in the San Jose Diridon Station and the Gilroy Station areas (all alternatives) by installing transit signal priority at key intersections. For Alternatives 1, 2, and 3, there will still be bus transit delays due to road closures at locations other than those addressed by TR-MM#2. For Alternative 4, adverse effects on bus transit operations will be fully addressed with implementation of TR-IAMF#2 and TR-IAMF#11 and Mitigation Measure TR-MM#2. In addition, the Authority would implement TR-MM#3, Railway Disruption Control Plan, which will reduce construction disruption to a matter of hours or a few days at most and will minimize disruption to passenger rail services. Therefore, Alternative 4 would not cause adverse effects on bus transit operations during construction in environmental justice communities and is not discussed further in this chapter.

However, even with project features, project-related construction staging and traffic could contribute to material decrease in bus route performance along roadways relative to Alternatives 1, 2, and 3. Construction of Alternatives 1, 2, and 3 would require temporary construction easements (TCE). The TCEs may require temporary closure of parking areas, bus stops, transit stations, or roadways. Changes to bus routes and bus stops would be managed through development and implementation of a CMP and construction transportation plan, but material decreases in certain bus routes could still occur with Alternatives 1, 2, and 3. No additional direct mitigation measures are available to avoid this construction impact on bus transit with Alternatives 1, 2, and 3.



During operations, the project would not impede rail transit operations and would enhance transit connections at the San Jose Diridon station. Alternative 4 would enhance Caltrain passenger rail service between San Jose and Gilroy by electrifying that service. Thus, there would be no operational adverse effects on passenger rail service.

The project would result in temporary disproportionately high and adverse effects related to bus transit service during construction with Alternatives 1, 2, and 3. Temporary disruption to bus transit would affect minority populations and low-income populations, as well as non-minority populations and non-low-income populations. Low-income populations, minority populations, and other sensitive populations generally are more dependent upon public transit systems for mobility than the population at large and any remaining effects would be felt at a greater magnitude by those populations than that experienced by other populations with access to other available transportation modes. The aresult, construction-related disruption to bus transit systems with Alternatives 1, 2, and 3 could disproportionately affect low-income populations, minority populations, and other sensitive populations throughout the San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections before consideration of project benefits.

Consideration of Project Benefits

The project would provide long-term intrastate travel benefits for minority populations and lowincome populations along the project corridor between Santa Clara and Gilroy to access HSR service through HSR stations at San Jose and Gilrov and then travel between San Francisco and Los Angeles/Anaheim (with Phase 1, and further with Phase 2). The minority populations and low-income populations that would be affected by construction bus transit delays and construction traffic delays along the Monterey Corridor in South San Jose with Alternatives 1, 2, and 3 live closer to the San Jose and Gilroy stations than the average individual in the reference community (the maximum distance from environmental justice communities in Santa Clara, San Jose, Morgan Hill, and Gilroy is 13 miles to a HSR station). Coyote Valley would be 18 miles from the nearest HSR station but is sparsely populated with limited reliance on transit and thus would be less affected by construction disruption of bus transit. The project would also encourage modal shifts to utilize rail and connected transit systems, which would provide mobility benefits to minority populations and low-income populations that are disproportionately dependent on transit services. While some construction traffic delays along the Monterey Corridor and construction delays to bus transit may occur on a temporary localized basis for Alternatives 1, 2, and 3, the long-term benefit of relative ease of access for intrastate travel and increased mobility due to modal shifts both locally and more broadly with implementation of HSR service would offset these temporary effects such that they are not considered high and adverse.

Aesthetics and Visual Quality

Construction of the project alternatives would introduce permanent structures, including viaducts and grade separations, stations, maintenance facilities, traction power substation (TPSS) facilities, and landscape changes, that would permanently remove or block residential views, distant scenic views, and contrast with scale and materials of nearby residential areas. Adverse visual effects would predominantly occur in residential areas where the project alternatives are located on viaduct and could affect the perceived quality of life of residents.

Alternatives 1 and 3, which would have approximately 45 and 43 miles of aerial viaduct (40 percent of the total alignment length), would have greater adverse visual effects than Alternative 2, which would have approximately 21 miles of aerial viaduct (20 percent of the total alignment length). Alternative 4 would have 15 miles of aerial viaducts (17 percent of the total alignment length). Table 5-18 shows the permanent effects on visual quality within the environmental justice RSA.

¹⁷ For example, Santa Clara Valley Transportation Authority (VTA) transit riders (pre-COVID) are approximately 75 percent non-white, 26 percent with household incomes less than \$50,000 and 46 percent with household income less than \$100,000 (VTA 2020). In contrast, in 2019, Santa Clara County (where VTA primarily operates) is 54 percent non-white with 21 percent households with income less than \$50,000 and 41 percent with household income less than \$100,000 (US Census 2019). This indicates that there is a greater percentage of non-white and low-income VTA riders than their share in the County population and thus a higher sensitivity to disruption to public transit.



Table 5-18 Permanent Effects on Visual Quality within the Resource Study Area

Subsection and City/Community within RSA	Alternative 1	Alternative 2	Alternative 3	Alternative 4					
San Jose Diridon	San Jose Diridon Station Approach								
Santa Clara	No change. The project alternative would utilize existing at-grade tracks, and new infrastructure would be within existing rail facilities.	The aerial structure wo some distant views, ind Range and Mt. Hamilto viewers.	cluding the Diablo	Same as Alternative 1					
San Jose	Near the San Jose Dirido with the residential setting visual barrier between Ga toward downtown San Jo	g of the Gardner neighbourdner and downtown Sa	There would be little change to the visual environment. Existing landscaping and barriers would limit most residents' exposure to the atgrade railway.						
Monterey Corrido	r								
San Jose	The viaduct along the median of Monterey Road would require removal of Keesling's Shade Trees, obscure residential views from Monterey Road, and alter the existing visual character of residential neighborhoods.	Beneficial effect. The HSR system would not be visible from adjacent residential neighborhoods, and the Monterey Road roadway reconstruction and associated landscaping enhancements would increase visual quality.	Same as Alternative 1	There would be little change to the visual environment. Existing landscaping and barriers would limit most residents' exposure to the atgrade railway.					
Morgan Hill and C	Bilroy								
Morgan Hill	The viaduct along the median of Monterey Road would be visible far from the existing highway corridor, affecting the views of residents and recreationalists. Views to the surrounding hills would be blocked.	The Monterey Road reconstruction would require the removal of Keesling's Shade Trees. Roadway grade separations would pass over the HSR and UPRR, blocking some residential views in Morgan Hill.	Same as Alternative 1	There would be little change to the visual environment. Existing landscaping and barriers would limit residents' exposure to the atgrade railway.					



Subsection and City/Community within RSA	Alternative 1	Alternative 2	Alternative 3	Alternative 4
San Martin	The aerial viaduct would contrast in scale and material with agricultural land and Llagas Creek through San Martin and would block views to the surrounding hills.	The retained-fill profile would block views across the tracks but would allow distant views to the Diablo Range. A roadway grade separation at San Martin Avenue would pass over the HSR and UPRR, blocking some residential views.	Same as Alternative 1	There would be little change to the visual environment. Existing landscaping and barriers would limit most residents' exposure to the atgrade railway.
Gilroy	The aerial structure would be taller than surrounding homes and other buildings, partially blocking the views of the surrounding hills. The aerial structures, including the Gilroy Station platforms, would impart an industrial aesthetic to the landscape and would dominate the scale of adjacent residential, commercial, and historic structures (e.g., Gilroy City Hall, Gilroy Caltrain Station). The aerial structure would be visible from surrounding neighborhoods and would contrast with existing settings and change commercial and industrial views.	The alignment would be on embankment through Gilroy. It would require the removal of some buildings, creating gaps in the urban fabric of downtown. The embankment would partially block views of the surrounding hills and the city, imparting an industrial aesthetic to the landscape, and dominating the scale of adjacent residential, commercial, and historic structures (e.g., Gilroy City Hall, Gilroy Caltrain Station).	No effect	There would be change to the visual environment in the vicinity of the Gilroy Station from removal of buildings to widen the railway and new station facilities for Caltrain and HSR but the changes would not reduce visual quality.



Subsection and City/Community within RSA	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Unincorporated Santa Clara County	The South Gilroy MOWF large industrial use into a disrupting the visual charablocking views.	n agricultural area,	The East Gilroy Station would contrast with the rural agricultural setting. The East Gilroy MOWF, located in Old Gilroy, would introduce a large industrial use into an agricultural area, disrupting the visual character and contrasting with the established character of residential areas, schools, and historic buildings in Old Gilroy.	Same as Alternative 1

Unincorporated Santa Clara and Merced County Alternatives 1, 2, 3 and 4 would be visible for about 5 miles from SR 152, between the junction with SR 156 and midway between Casa de Fruta and Bell Station. The HSR would introduce permanent changes to the aesthetic and visual quality of existing travelers' views that would contrast with the agricultural and open space setting. Aerial HSR structures, rising up to 60 feet, lines of overhead catenary system, noise barriers, and overcrossings and viaducts for HSR and roadways would impart an industrial aesthetic to the landscape, obscuring views of the rolling hills and riparian landscape by introducing a long and tall concrete structure. The HSR viaduct across Pacheco Creek and twin west portals for Tunnel 2 would be visible to the south of SR 152. The view of the valley would be blocked by the viaduct. The extensive grading for the tunnel portal would be evident by the reduction in tree coverage on the hillsides. Native trees would be established and the hillsides revegetated, but the thick oak woodlands would take years to fill in across the regraded hillsides. The hillsides would also be graded uniformly, removing the natural curves and slopes. The view of the viaduct from the highway would disrupt the natural setting with its industrial aesthetic of concrete and steel and stout columns.

San Joaquin Valley

Unincorporated Merced County The industrial character of a TPSS would contrast with the agricultural and open-space setting seen by visitors at the San Joaquin National Cemetery in Romero Valley. The alignment would rise on viaducts to pass over Los Banos Creek and the Grasslands Ecological Area, blocking recreationist views and contrasting with the flat topography. The industrial aesthetic would clash with the rural setting and simple agricultural structures.

HSR = high-speed rail MOWF = maintenance of way facility RSA = resource study area SR = State Route TPSS = traction power substation UPRR = Union Pacific Railroad

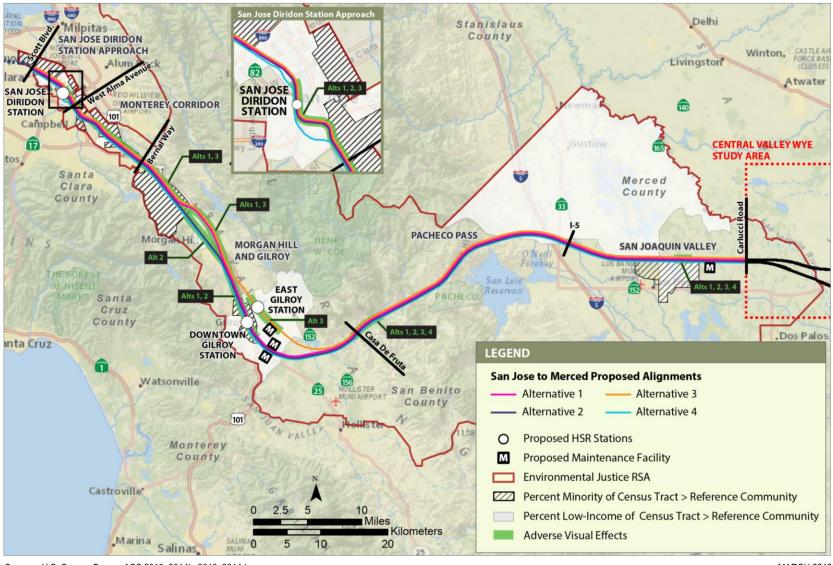


The locations of adverse visual effects are illustrated on Figure 5-16. These adverse effects occur in downtown San Jose, South San Jose, Morgan Hill, San Martin, Gilroy, east Gilroy, Pacheco Pass, and the Grasslands Ecological Area. All four project alternatives would have adverse visual effects in San Joaquin Valley in the vicinity of the Grasslands Ecological Area. Alternatives 1, 2, and 3 would have adverse visual effects in downtown San Jose, Morgan Hill, and San Martin. Alternatives 1 and 3 would have adverse visual effects in South San Jose, while Alternative 2 would have beneficial visual effects in South San Jose. Alternatives 1 and 2 would adversely affect the visual quality of downtown Gilroy, while the East Gilroy Station and East Gilroy MOWF under Alternative 3 would have a substantial adverse effect on the visual quality east of Gilroy and in Old Gilroy.

As illustrated on Figure 5-16, some of the adverse visual effects would occur in areas where the percent minority populations or percent low-income populations exceed that of the reference community (63.4 percent minority and 23.3 percent low-income). This occurs in downtown San Jose (34.5 percent low-income), South San Jose (70.4 percent minority and 28.6 percent low-income), Gilroy (70.9 percent minority and 40.8 percent low-income), east Gilroy (33.9 percent low-income), and in the San Joaquin Valley (72.4 percent minority and 23.6 percent low-income). Adverse visual effects under Alternative 4 would only affect minority populations and low-income populations in San Joaquin Valley. During the environmental justice engagement process, community members throughout the project extent expressed concern about visually dominant project elements such as aerial structures and HSR stations resulting in the loss of residential views and reduced privacy for residents adjacent to the passing HSR trains. In San Jose, community members also expressed concern that new HSR infrastructure would attract graffiti.

The Authority would implement direct mitigation measures (AVQ-MM#3, Incorporate Design Aesthetic Preferences into Final Design and Construction of Non-Station Structures; AVQ-MM#4, Provide Vegetation Screening along At-Grade and Elevated Guideways Adjacent to Residential Areas: and AVQ-MM#5. Replant Unused Portions of Lands Acquired for the HSR) to reduce adverse visual effects. These measures include coordination with local jurisdictions to incorporate Authority-approved aesthetic preferences into final design and construction, landscape screening to obscure HSR infrastructure from residential views, and replanting or replacement of vegetation that will, upon maturity, be similar in size and character to the removed vegetation. These measures will reduce effects on adjacent populations by softening and obscuring the contrasting aesthetic of HSR infrastructure; reducing the resulting area, scale and exposure of community resources experiencing aesthetic and visual effects; and enhancing the visual appeal of areas near HSR infrastructure. As part of these measures, the Authority will also incorporate graffiti abatement and direct mitigation for temporary construction fencing and permanent HSR infrastructure. These direct mitigation measures will be applied equally in areas with high rates of minority populations and low-income populations and the reference community as a whole but will only partially address the concerns raised by community members. While the Authority's proposed direct mitigation will effectively address the concern that new HSR infrastructure would attract graffiti, the direct mitigation will not restore residential views blocked by HSR infrastructure or reduce the scale of aerial structures that would contrast with existing residential or agricultural settings.





Sources: U.S. Census Bureau ACS 2010–2014b, 2010–2014d

MARCH 2019

Figure 5-16 Adverse Visual Effects



With the implementation of direct mitigation, adverse visual effects will remain in San Jose (Alternatives 1, 2, and 3), South San Jose (Alternatives 1 and 3), Morgan Hill (Alternatives 1, 2, and 3), San Martin (Alternatives 1, 2, and 3), Gilroy (Alternatives 1 and 2) or east Gilroy (Alternative 3), and in the Pacheco Pass and San Joaquin Valley in the vicinity of the Grasslands Ecological Area under all project alternatives. Adverse effects due to the aerial viaduct would disproportionately occur in areas where the percent low-income population exceeds that of the reference community with Alternative 1 (59 percent), Alternative 2 (50 percent), and Alternative 3 (59 percent) but would not disproportionately occur in low-income areas under Alternative 4 (35 percent) (see Figure 5-16). Under Alternative 2, effects due to embankment in Gilroy would also disproportionately occur in minority areas and low-income areas. Because permanent adverse visual effects would be predominantly borne by and disproportionately affect low-income populations (Alternatives 1, 2, and 3) or be disproportionately borne by minority populations (Alternative 2), these effects would disproportionately affect minority populations and low-income populations for Alternatives 1, 2, and 3. Adverse visual effects would not predominantly be borne by or disproportionately affect minority populations under Alternative 4.

Consideration of Project Benefits

Implementation of the HSR project would result in less demand for future widenings of major highways in Northern California (including I-880, US 101, I-280, SR 87, SR 85, and SR 152) due to the diversion of vehicle travel to rail travel. Avoidance of widening of major highways would avoid associated visual aesthetic effects of highway widening, which would benefit minority populations and low-income populations that reside adjacent to these highways. Implementation of the HSR project would also result in less demand for future airport expansion of airports like San Jose International Airport. Avoidance of airport expansion would avoid associated visual aesthetic effects of adding runways and gates, which could benefit minority populations and low-income populations that reside adjacent to airports. While there would be such benefits, they would occur mostly in areas and communities not affected by the HSR alternative elevated alignments and stations and thus would benefit different populations than those that would experience adverse visual effects due to Alternatives 1, 2, and 3. As such, the project benefits relative to visual aesthetics are not considered to offset the disproportionately high and adverse visual aesthetic effects of Alternatives 1, 2, and 3.

Displacements and Relocations

Construction of the project alternatives would require the acquisition of right-of-way and would result in the displacement of residences, commercial and industrial businesses, and agricultural operations. Table 5-19 shows a summary by alternative of the property acquisitions and displacements that would occur by property type. A total of 420, 1,012, 368, and 175 displacements have the potential to occur under Alternatives 1, 2, 3, and 4, respectively. Alternative 2 would result in the greatest number of displacements of all property types and Alternative 4 would have the fewest. The DDV and TDV would not result in any substantial differences in construction period effects compared to the alternatives without the DDV and TDV except for the additional commercial displacements associated with the DDV for Alternative 4, which would be slightly larger (by two displacements). Some of these displacements would occur in census tracts with a higher percentage of minority persons or low-income persons compared to the reference community.



Table 5-19 Displacements by Type

Displacement Type	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Residences	147	603	157	68
Commercial and Industrial Businesses	217	348	157	66 (68)
Agricultural Businesses	49	53	49	40
Community and Public Facilities	7	8	5	1
Total Displacements	420	1,012	368	175 (177)

Source: Authority 2019b

Note: Displacements associated with Alternative 4 with the DDV are shown in parentheses.

Displacements would occur within each of the cities and communities within the environmental justice RSA. Table 5-20 shows a breakdown of residential and business displacements within each subsection and city and community. The greatest concentration of displacements would occur in San Jose and Gilroy under Alternative 1; San Jose, Morgan Hill, and Gilroy under Alternative 2; in Santa Clara, San Jose, and unincorporated Santa Clara County east of Gilroy under Alternative 3, and in Gilroy under Alternative 4. Figure 5-17 and Figure 5-18 depict residential and business displacements by city and community using proportional symbols to represent the relative number of displacements.

The project alternatives would result in 25 residential displacements and 36 business displacements in Santa Clara under Alternatives 2 and 3, and 2 business displacements under Alternative 1. Homesafe Santa Clara, which is managed by Charities Housing and provides 24 units of subsidized, affordable housing and on-site childcare for very low-income survivors of domestic abuse and their children would be displaced under Alternatives 2 and 3. These displacements occur in areas with high percentages of minority populations and low-income populations (39 percent low-income and 74 percent minority) relative to the reference community (23.3 percent low-income and 63.4 percent minority). Alternatives 1 and 4 would have no residential displacements within Santa Clara.



Table 5-20 Residential and Business Displacements by Subsection and City/Community

	Altern	Alternative 1 Alternative 2		Alternative 3		Alternative 4		
Subsection and City/Community	Res.	Bus.	Res.	Bus.	Res.	Bus.	Res.	Bus.
San Jose Diridon Station Approach	23	63	43	94	43	94	4	19
								(21)
Santa Clara	0	2	25	36	25	36	0	0
San Jose	23	61	18	58	18	58	4	19
								(21)
Monterey Corridor	2	44	19	54	2	44	2	1
San Jose	2	44	19	54	2	44	2	1
Morgan Hill and Gilroy	83	131	502	225	73	40	23	58
San Jose	6	4	16	18	7	2	1	2
Morgan Hill	8	0	182	41	10	0	0	1
San Martin	9	20	55	22	12	19	1	16
Gilroy	24	91	213	123	5	2	1	31
Unincorporated Santa Clara County	32	12	32	17	36	14	16	5
Unincorporated San Benito County	4	4	4	4	3	3	4	3
Pacheco Pass	5	6	5	6	5	6	5	6
Unincorporated Santa Clara County	0	1	0	1	0	1	0	1
Unincorporated Merced County	5	5	5	5	5	5	5	5
San Joaquin Valley	34	22	34	22	34	22	34	22
Volta	6	2	6	2	6	2	6	2
Unincorporated Merced County	28	20	28	20	28	20	28	20
Environmental Justice Resource Study Area Total	147	266	603	401	157	206	68	106 (108)

Source: Authority 2019b

Note: Displacements associated with Alternative 4 with the DDV are shown in parentheses. Res. = residential

Bus. = business



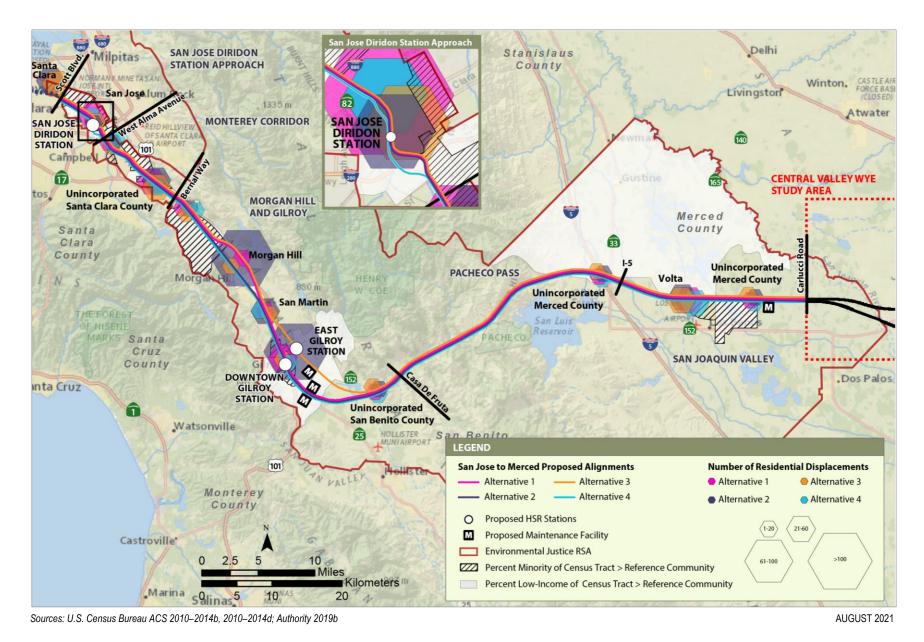


Figure 5-17 Residential Displacements—Proportional Representation by Alternative and Community

California High-Speed Rail Authority



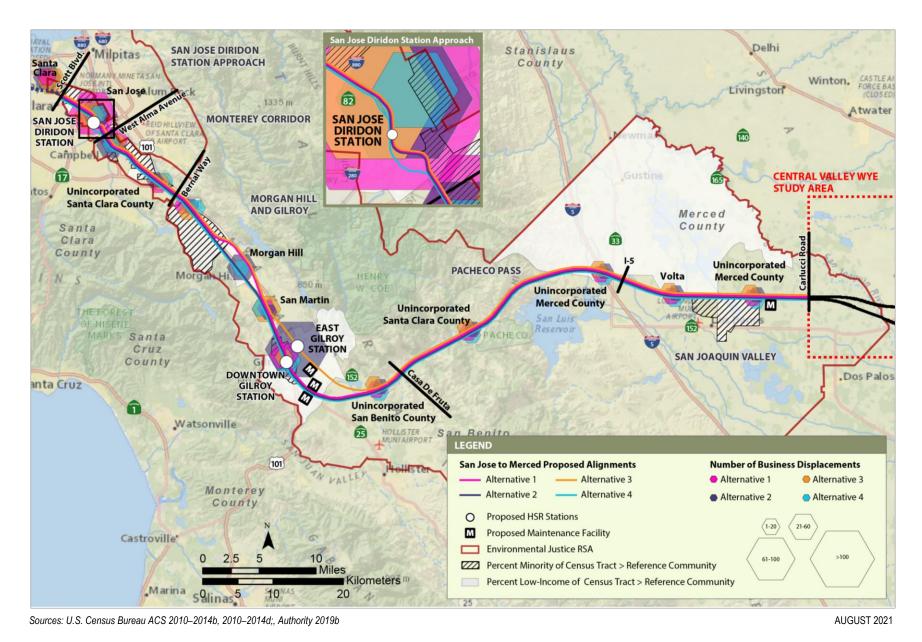


Figure 5-18 Business Displacements—Proportional Representation by Alternative and Community



In San Jose, Alternative 2 would result in the greatest number of residential and business displacements, while Alternative 4 would result in the fewest number of residential and business displacements. In addition to these residential and business displacements, Alternatives 1, 2, and 3 would result in the displacement of a cultural facility, San Jose Taiko, which provides professional development opportunities and educational programs about Japanese drumming (and whose performers are mostly minority individuals), and all four project alternatives would displace a religious facility, Templo La Hermosa (whose members are primarily Hispanic). Both facilities are located in low-income areas in central San Jose.

Alternatives 1 and 3 would also displace one of the two remaining drive-in movie theaters in the Bay Area, which functions as the Westwind Capitol Public Market by day Wednesday through Friday. The Westwind Capitol Public Market is a flea market and farmers market that regularly features local mariachi entertainment and Mexican wrestling. The displacement of the Westwind Drive-In and Capitol Public Market under Alternatives 1 and 3 would remove a unique community resource that serves as a gathering place for community members.

Residential and business displacements in Morgan Hill would be greatest under Alternative 2, which extends through downtown Morgan Hill on embankment adjacent to the existing Caltrain/UPRR tracks. Compared to Alternatives 1 and 3, which are aligned on aerial structure adjacent to US 101 along the east side of Morgan Hill, Alternative 2 would displace 182 residences and 41 businesses in Morgan Hill, while Alternative 1 would displace 8 residences and Alternative 3 would displace 10 residences. Alternative 4, utilizing the blended, at-grade design option through Morgan Hill, would result in 1 business displacement but no residential displacements. Alternative 2 would displace single-family and multifamily residences in downtown Morgan Hill, north and south of the existing Morgan Hill Caltrain Station. Areas of downtown and southern Morgan Hill are approximately 45 percent low-income. Alternative 2 would displace 45 units of affordable housing and a 40-unit residential building that provides affordable senior housing within the community. Residential displacements in Morgan Hill under Alternatives 1 and 3 would consist predominantly of single-family residences adjacent to US 101.

In San Martin, one of two multifamily residential buildings associated with the Boccardo Family Living Center would be displaced under Alternative 2. The Boccardo Family Living Center provides affordable, transitional housing for homeless families with children in South Santa Clara County, an emergency shelter program for families, and seasonal migrant farmworker housing.

Residential and business displacements in Gilroy would be greatest under Alternative 2 (213 residential and 123 business displacements), followed by Alternative 1 (24 residential and 91 business displacements), Alternative 4 (one residential displacement and 31 business displacements), and Alternative 3 (5 residential displacements and 2 business displacements). Alternatives 1, 2, and 4 extend through downtown Gilroy, with Alternative 1 on aerial structure, Alternative 2 on embankment, and Alternative 4 at grade. Displacements of single-family and multifamily residences in Gilroy with Alternatives 1 and 2 would occur north of the existing Gilroy Caltrain Station, along Railroad Street, in northern Gilroy, north of Lewis Street. Alternative 2 would also have residential displacements east of the alignment just south of E 10th Street. The one residential displacement with Alternative 4 would be in the northernmost part of Gilroy. All residential and business displacements in Gilroy would occur in areas with some of the highest percentages of minority populations and low-income populations in the RSA, ranging from 61 to 69 percent low-income, and up to 89 percent minority. Alternatives 1 and 2 would also displace Gilroy Preparatory School, a K–5 charter school with an enrollment of 476 students, of which 59 percent were English learners or eligible for free/reduced price meals in 2016–2017 (CDE 2017).

An analysis of available replacement properties indicates that there would likely be a sufficient number of comparable replacement properties available in the relocation RSA as a whole and in many areas along the project corridor. However, as noted in Section 3.12, at the time of the analysis, there were insufficient residential properties within Morgan Hill, San Martin, and Gilroy to accommodate all the residential displacements under Alternative 2 within the same community. In unincorporated Merced County, there is not a sufficient number of potential residential properties for relocation for all alternatives, but there is a surplus of available residential



properties for relocation in nearby Los Banos. Insufficient commercial business properties providing relocation availability would exist in San Martin under all project alternatives, in Morgan Hill under Alternative 2, and in Gilroy under Alternatives 1 and 2 to relocate all displaced businesses within the same community. Insufficient industrial business properties would exist in San Martin under Alternatives 2 and 4, and in Gilroy under Alternatives 1, 2 and 4 to relocate all displaced businesses within the same community.

The share of residential displacements within minority areas, on an end-to-end basis, would range from 20 percent (Alternative 3) to 56 percent (Alternative 2), with Alternative 2 being the only alternative where residential displacements would predominantly occur in minority areas. Residential displacements would not occur in minority areas in a proportion greater than the minority share in the reference community population for any alternative. The share of residential displacements within low-income areas would range from 44 percent (Alternative 4) to 66 percent (Alternative 2), with Alternatives 1 and 2 being the only alternatives where residential displacements would predominantly occur in low-income areas. Residential displacements for Alternatives 1, 2, 3, and 4 would occur in low-income areas in a proportion greater than the low-income share in the reference community population with all alternatives.

The share of business displacements within minority areas, on an end-to-end basis, would range from 41 percent (Alternative 4) to 63 percent (Alternative 2), with Alternatives 1 and 2 being the only alternatives where business displacements would predominantly occur in minority areas. However, business displacements would not occur in minority areas in a proportion greater than the minority share in the reference community population. The share of business displacements within low-income areas would range from 63 percent (Alternative 4) to 85 percent (Alternative 2), and business displacements would predominantly occur in low-income areas and in a proportion greater than the low-income share in the reference community population with all alternatives.

Displacements were a primary concern of community members along the project alignment. Participants in Gilroy were particularly concerned about displacement of low-income rental housing, the ability of low-income and unemployed community members who rent their homes to relocate if affected by the project, and the adequacy of replacement housing to relocate those affected.

The Authority will comply with federal and state laws that require that relocation assistance be provided to any person, business, farm, or nonprofit operation displaced because of the acquisition of real property by a public entity for public use. Relocation resources available to displaced residents include relocation assistance and counseling, direct financial assistance, and sufficient government funding to carry out all relocation processes and forms of assistance. The Authority is committed to making sure that all benefits and services will be provided equitably without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964 and the California High Speed Rail Authority Title VI Program (Authority 2012a). USEO 13166 (Improving Access to Services for Persons with Limited English Proficiency) also underscores the Authority's commitment to minimizing community effects by not disproportionately favoring or discriminating against any populations in the process of providing support to residents and businesses.

In addition to relocation assistance to owners and renters, the Authority will actively coordinate with the City, County, and local stakeholder groups before and during proposed Project construction to prepare and implement an Outreach and Engagement Plan to address the homeless encampments that are present within the area. The Outreach and Engagement Plan will include input on goals and strategies from local stakeholder groups, as well as established goals and policies of the County's Community Response to Homelessness Strategic Plan. The Outreach and Engagement Plan will focus on a targeted proactive response for temporary and permanent relocation assistance for transient populations affected by the proposed Project.

In addition to relocation assistance consistent with federal and state laws, as described in Section 3.12, per Mitigation Measure SO-MM#1, the Authority will make efforts to locate suitable replacement properties that are comparable to those currently occupied by these residents and/or support the construction of suitable replacement facilities. In cases where residents wish to remain in the immediate vicinity and there is inadequate local relocation availability, the Authority



will take measures to purchase vacant land or buildings in the area and consult with local authorities over matters such as zoning, permits, and moving of homes and replacement of services and utilities, as appropriate.

The relocation assistance and Mitigation Measure SO-MM#1 provided by the Authority will address many of the concerns raised by community members, inasmuch that the Authority will assist displaced residents with finding suitable housing within the communities they currently reside in, if desired, and will take active steps to purchase vacant land or buildings and support the construction of suitable replacement facilities in areas with insufficient residential availability.

However, affordable housing would continue to be a challenge in Morgan Hill and Gilroy with Alternative 2. The displacement of 85 units of affordable housing in Morgan Hill under Alternative 2 would reduce the supply of affordable housing in Morgan Hill. Although affordable housing units would not be displaced in Gilroy, the steady rise in cost of living in Gilroy has resulted in an affordability crisis for this city, which relies upon wage-earning households and middle-income professionals to support the many retail businesses, manufacturing operations, food processors, and public sector agencies in Gilroy. For Alternatives 1, 3, and 4, there would be adequate residential relocation availability in local communities for more than the estimated number of displacements in all locations other than unincorporated Merced County, but, as noted above, there is ample residential relocation availability in nearby Los Banos, and implementation of Mitigation Measure SO-MM#1 will help with housing replacement in unincorporated Merced County for those who do not wish to relocate to Los Banos.

Only some of the substantial number of business displacements in Morgan Hill and Gilroy under Alternative 2, and in Gilroy under Alternative 1, could relocate locally. This could undermine economic development and business retention efforts in Morgan Hill and Gilroy, as businesses may choose to close or relocate to other communities due to insufficient local relocation options. Alternatives 3 and 4 would also result in displacements, but the number of displacements is notably less than with Alternatives 1 and 2 and would occur primarily in areas with adequate relocation availability. With Alternative 3, there would be adequate relocation availability in minority areas and low-income areas where business displacements occur. With Alternative 4, there would be adequate relocation availability in minority areas and low-income areas where business displacements occur, except for commercial businesses in Gilroy. As a result, the concerns of community members regarding displacements would not be fully addressed, and adverse effects would remain even with the Authority's provision of relocation resources for Alternatives 1, 2, and 4 but not for Alternative 3.

Taking into account displacements, relocation assistance, and project direct mitigation, there would be disproportionately high and adverse effects on low-income populations related to residential displacements under Alternative 2 (due to disproportionate displacement in low-income areas and inadequate relocation availability in Morgan Hill and Gilroy)¹⁹ and disproportionately high and adverse effects on low-income populations related to business displacements under Alternatives 1 and 4 (due to disproportionate displacement in low-income areas and inadequate relocation availability in Gilroy), before consideration of project benefits.

Consideration of Project Benefits

The project would result in construction spending and employment within the area along the project corridor, including in minority communities and low-income communities. The project

February 2022

California High-Speed Rail Authority

¹⁸ With Alternative 3, there are some areas with insufficient relocation availability, such as San Martin, but these areas do not have shares of minority populations or low-income populations greater than in the reference community.

¹⁹ With Alternative 2, the overall residential displacements are 56 percent in minority areas, but the areas of insufficient local residential relocation availability are in Morgan Hill, San Martin, and Gilroy. Morgan Hill and San Martin do not have minority populations greater than the reference community, but Gilroy does. As a result, there is not a disproportionate share of areas with insufficient relocation availability in minority areas. Morgan Hill does have low-income populations greater than the reference community, as does Gilroy. Taking into account relocation availability, there would be disproportionately high and adverse effects related to residential displacement on low-income populations but not minority populations.



would also result in local operational employment and spending, including related to the San Jose Diridon Station, the Gilroy Station, the Gilroy MOWF, and the Maintenance of Infrastructure Facility in the San Joaquin Valley.

HSR stations would improve access to goods and services for those living or working near the stations and provide opportunities for increased jobs. The Authority and station cities are working together to develop and implement local land use plans to promote growth in close proximity to HSR stations. Close proximity to HSR stations would also provide opportunities for minority individuals and low-income individuals to access educational and employment opportunities and contacts, which can improve individual economic conditions within local communities.

The Authority's Community Benefits Agreement is a cooperative partnership between the Authority, skilled craft unions, and contractors that is based on its Community Benefit Policy (Authority 2021b). The policy is intended to promote employment and business opportunities for small and disadvantaged businesses and workers during the construction of the project. Through the Community Benefits Agreement, the Authority is committed to engaging disadvantaged communities and achieving employment targets for individuals who reside in disadvantaged areas and those designated as disadvantaged workers, including veterans.

While there would be construction and operational employment, spending, and access benefits that would result in certain economic benefits to minority populations and low-income populations, these benefits are not considered to be sufficient to offset residential displacement in low-income areas and the impact on affordable housing with Alternative 2, and thus Alternative 2 would result in a disproportionately high and adverse effect on low-income populations related to residential displacements. With direct mitigation, none of the other alternatives would result in residential displacement being a disproportionately high and adverse effect on minority populations or low-income populations.

This employment and direct spending would provide local economic benefits along the project corridor, including for minority populations and low-income populations in areas that may experience business displacements, which would offset the disproportionate loss of business employment and spending due to business displacements of Alternatives 1, 2, and 4 to low-income populations. Therefore, there would be no disproportionately high and adverse effects related to business displacements for Alternatives 1, 2, and 4 after taking into account offsetting benefits.

Employment

Construction of the project alternatives has the potential to result in adverse employment effects associated with business displacements. As described under Displacements and Relocations, the project alternatives would require acquisition of additional right-of-way, resulting in the displacement of commercial and industrial businesses. The estimated job loss associated with these business displacements would be 3,512 employees under Alternative 1, 5,412 employees under Alternative 2, 2,444 employees under Alternative 3, and 1,077 employees under Alternative 4 (Authority 2019b). While there are sufficient, available, and comparable properties in the RSA such that most of the affected businesses would be able to relocate within the same communities, displaced businesses in unincorporated Merced County and San Martin under all four project alternatives, in unincorporated Santa Clara County under Alternatives 1, 2, and 3, in Morgan Hill under Alternative 2, and in Gilroy under Alternatives 1, 2, and 4, may be unable to relocate within the same communities. The potential effect on minority populations and low-income populations would be greatest in Gilroy under Alternatives 1 and 2, where between 90 and 122 displaced businesses, respectively, may be unable to relocate within the same community. The Authority would provide these businesses with relocation assistance resources; however, as described previously, some of these businesses may close rather than relocate, resulting in job loss that has the potential to affect minority populations and low-income populations employed by these businesses.

Construction of the project alternatives would also require acquisition of agricultural lands and confined animal agricultural facilities that could affect agricultural operations and employment.



The permanent loss of agricultural land could result in a reduction of employment opportunities for farm workers who could be negatively affected if the acquisition results in permanent job losses or if the workers are unable to find work on another farm or industry in the region. The estimated job loss associated with the amount and type of agricultural lands converted for construction of the project alternatives would be 62 jobs under Alternative 1, 65 jobs under Alternative 2, 77 jobs under Alternative 3, and 60 jobs under Alternative 4 (Authority 2019a). The Authority would mitigate the loss of important farmland through the implementation of Mitigation Measure AG-MM#1, Conserve Important Farmland (Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Unique Farmland), which will preserve important farmland in an amount commensurate with the quantity and quality of converted farmlands. The Authority will provide access modifications to affected farmlands in coordination with property owners, to allow for continued use of the maximum amount of agricultural lands and facilities. These measures will minimize effects on the conversion of agricultural farmland but would not reduce the adverse effect on agricultural employment.

Consideration of Project Benefits

Overall, HSR construction would generate employment growth that would benefit the region during the 7-year construction period. As identified in Chapter 3.18 Regional Growth, the project alternatives would create 28,163 to 44,550 additional direct or indirect jobs within Santa Clara, San Benito, and Merced Counties. Construction of Alternative 3 would generate the greatest number of jobs (44,550), while construction of Alternatives 1 and 2 would generate fewer jobs (43,328 and 37,119 jobs, respectively). Alternative 4 would generate the fewest jobs (28,163 jobs).

As identified in Section 3.18, Regional Growth, during operations, all project alternatives would generate an

Construction-Related Job Creation

- Between 28,000 and 45,000 direct and indirect jobs are expected to be generated during the construction period.
- The Authority participates in training programs designed to increase the ability of local workers to complete for jobs and maintains a hiring goal of 30 percent disadvantaged workers and small businesses.

estimated 1,110 direct/indirect jobs. The direct jobs would include train operations and dispatching, infrastructure and equipment maintenance, station and train cleaning, ticketing and other commercial activities, and administration. The indirect and induced jobs would include additional employment supporting, servicing, or supplying train operations; administration and dispatching; infrastructure and equipment maintenance; station and train cleaning; ticketing and other commercial activities; and other occupations, such as security, operations of concessions, and provision of goods and services to riders entering and leaving the HSR system. In addition, due to improved accessibility with the project, the project alternatives would result in an additional inducement of 21,860 jobs in the resource study area.

The Authority is committed to making sure that no person in the state of California is excluded from participation in, nor denied the benefits of, its programs, activities, and services on the basis of race, color, national origin, age, sex, or disability as afforded by Title VI of the Civil Rights Act of 1964 and related statutes. As described in detail in Section 3.18, Regional Growth, the Authority and others have been implementing a variety of programs to increase the ability of local workers and construction firms to complete and obtain construction jobs associated with the HSR system. To increase the ability of local workers to compete for available project jobs, as part of the Community Benefits Agreement, the Authority has made a commitment through a cooperative partnership with skilled craft unions and contractors to promote and help implement education, apprenticeship training, advanced communication about hiring opportunities, and contractor networking opportunities for local workers. Th Community Benefits Agreement is intended to help disadvantaged workers, such as those who are lower-income, veterans, single parents, have no high school or General Educational Development diploma, or suffer from chronic unemployment. The commitment includes setting a hiring goal that 30 percent of all work hours be filled by disadvantaged workers. The Authority also has committed to a 30 percent small business



participation goal for all of the Authority's construction.²⁰ The employment opportunities created by construction of the project alternatives, in combination with the Authority's employment commitments and training programs designed to increase the ability of local workers to compete for these jobs, has the potential to result in economic benefits for the communities affected by the project, including minority populations and low-income populations.

Adverse effects on employment associated with displaced businesses and agricultural land conversion would be offset by the regional employment growth that would be experienced during HSR construction. Accordingly, no disproportionately high and adverse effect on minority populations and low-income populations would result from project construction's effects on employment.

Air Quality

Construction of the project alternatives would require use of heavy construction equipment and trucks that could generate fugitive dust emissions (particulate matter [PM₁₀ and PM_{2.5}) from disturbed ground surfaces, and combustion pollutants, particularly ozone (O₃) precursors (nitrogen oxides [NO_X] and volatile organic compounds [VOC]). Temporary construction activity for all four project alternatives would not exceed the cancer risk thresholds of 10 in 1 million for Bay Area Air Quality Management District (BAAQMD) and Monterey Bay Air Resources District (MBARD), and 20 in 1 million for San Joaquin Valley Air Pollution Control District (SJVAPCD). However, construction of all project alternatives would lead to new violations of the PM₁₀ and PM_{2.5} California ambient air quality standards (CAAQS) and national ambient air quality standards (NAAQS), as well as potentially contribute to existing PM₁₀ and PM_{2.5} violations through exceedances of the significant impact level (SIL). Alternatives 1, 2, and 4 would also violate the 1-hour nitrogen dioxide (NO₂) NAAQS and CAAQS.

Table 5-21 shows the full list of localized criteria pollutants violations by subsection. Because these standards are established to protect the public from adverse health effects that can occur from exposure to air pollutants, violations of these thresholds indicate increased health risks associated with temporary construction-related air quality emissions.

Table 5-21 Temporary Localized Criteria Pollutants Violations by Subsection

Air Quality Standard	Alternative 1	Alternative 2	Alternative 3	Alternative 4
San Jose Diridon Station Approach				
24-hour PM _{2.5} NAAQS	Х	Х	Х	Х
Annual PM _{2.5} CAAQS				Х
24-hour and annual PM ₁₀ SIL	Х	Х	Х	Х
Annual PM _{2.5} SIL	Х	Х	Х	Х
Monterey Corridor				
1-hour NO ₂ CAAQS		Х		
1-hour NO ₂ NAAQS	Х	Х		Х
Annual PM _{2.5} CAAQS		Х		
24-hour PM _{2.5} NAAQS		Х		Х
24-hour PM ₁₀ NAAQS				Х
24-hour PM ₁₀ SIL	Х	Х	Х	Х
Annual PM _{2.5} SIL	Х	Х	Х	Х

²⁰ Additional information about these programs is available at http://hsr.ca.gov/Programs/Small_Business/index.html and http://www.hsr.ca.gov/Programs/Construction/index.html.

California High-Speed Rail Authority

February 2022



Air Quality Standard	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Morgan Hill and Gilroy	·			
1-hour NO ₂ CAAQS	Х			Х
1-hour NO ₂ NAAQS	Х	Х		Х
Annual PM ₁₀ CAAQS	Х	Х	Х	Х
24-hour PM _{2.5} NAAQS	Х	Х		Х
24-hour PM ₁₀ NAAQS				Х
24-hour and annual PM ₁₀ SIL	Х	Х	Х	Х
Annual PM _{2.5} SIL	Х	Х	Х	Х
Pacheco Pass				
24-hour PM _{2.5} NAAQS	Х	Х	Х	Х
Annual PM _{2.5} CAAQS and NAAQS	Х	Х	Х	Х
24-hour and annual PM ₁₀ SIL	Х	Х	Х	Х
Annual PM _{2.5} SIL	Х	Х	Х	Х
San Joaquin Valley				
24-hour PM ₁₀ CAAQS SIL	Х	Х	Х	Х
24-hour PM _{2.5} NAAQS SIL	Х	Х	Х	Х
Number of Standards with Violations	18	20	14	22

CAAQS = California ambient air quality standards

NAAQS = national ambient air quality standards

NO₂ = nitrous dioxide

PM₁₀ = particulate matter smaller than or equal than 10 microns in diameter

PM_{2.5} = particulate matter smaller than or equal than 2.5 microns in diameter

SIL = significant impact levels

Violations of the CAAQS and NAAQS would occur under each project alternative, and along the entire length of the project alignment (i.e., within every subsection), as shown in Table 5-21. The potential for health risks would be greatest adjacent to the construction sites and would dissipate rapidly as a function of distance from construction activities.

Increased health risks associated with criteria pollutant emissions would be greatest under Alternative 4, followed by Alternatives 2, 1 and 3, because of the greater amount of earthwork associated with the berm, embankment, and at-grade construction within the Monterey Corridor and Morgan Hill and Gilroy Subsections. Ambient air quality violations within the Pacheco Pass Subsection are driven by batching and tunneling activities, which would be similar across all project alternatives, but overall health risks within this subsection would be low due to the limited number of people in this area of predominantly open space. Construction activities within the San Joaquin Valley Subsection would be identical among the four project alternatives. Emissions concentrations from berm construction and construction of the MOWS would violate the 24-hour $PM_{2.5}$ and PM_{10} SILs.

Although construction-related air quality was not specifically raised as a community concern during environmental justice engagement, the increased health risks associated with temporary construction-related air quality emissions warrants consideration. Project features (AQ-IAMF#1, Fugitive Dust Emissions; AQ-IAMF#2, Selection of Coatings; AQ-IAMF#3, Renewable Diesel; AQ-IAMF#4, Reduce Criteria Exhaust Emissions from Construction Equipment; AQ-IAMF#5, Reduce Criteria Exhaust Emissions from On-Road Construction Equipment; and AQ-IAMF#6,



Reduce the Potential Impact of Concrete Batch Plants) will minimize construction emissions through implementation of the best available on-site controls. However, exceedances of the CAAQS and NAAQS will still occur. Beyond the air quality IAMFs, direct mitigation measures have been identified to address air quality impacts, including AQ-MM#1: Implement Additional On-Site Emissions Controls to Reduce Fugitive Dust: AQ-MM#2: Construction Emissions Reductions – Requirements for use of Zero Emission (ZE) and/or Near Zero Emission (NZE) Vehicles and off-road equipment; AQ-MM#3, Offset Project Construction Emissions in the San Francisco Bay Area Air Basin, and AQ-MM#4, Offset Project Construction Emissions in the San Joaquin Valley Air Basin. While Mitigation Measures AQ-MM#1 through AQ-MM#4 will offset VOC, NOx, and PM emissions, as required, these offsets could occur regionally throughout the San Francisco Bay Area Air Basin, North Central Coast Air Basin, San Joaquin Valley Air Basin. Accordingly, the emission reductions achieved by these offsets may not directly reduce localized pollutant concentrations. Accordingly, even with these identified actions, no direct mitigation is available to reduce increased health risks associated with construction-related emissions. therefore adverse effects on public health would result from temporary construction-related emissions. These adverse health risks associated with elevated criteria pollutants would be borne by individuals in all communities adjacent to project construction because of the wide dispersion of criteria pollutants from construction and the occurrence of construction emissions along the entire length of construction (as opposed to only in discrete areas) and would not disproportionately affect minority populations and low-income populations nor would the effect on minority populations and low-income populations be greater in magnitude than the adverse effects on the reference community. Accordingly, no disproportionately high and adverse effect on minority populations and low-income populations would result from construction-related air quality emissions under any of the build alternatives.

Consideration of Project Benefits

As discussed in Section 3.3, implementation of the project would result in substantial reductions in regional criteria pollutants and greenhouse gases due to the diversion of on-road passenger vehicle traffic to a train mode of travel using an electric train that would run on renewable electricity. These reductions would improve regional air quality compared to the No Project Alternative, which would benefit minority populations and low-income populations along the project corridor and regional populations in general, and minority populations and low-income populations often experience higher air pollution burdens at present. These reductions would also contribute to efforts to reduce greenhouse gases and reduce associated climate change effects, and minority populations and low-income populations are often the most vulnerable to current and forecasted climate change effects. Although these benefits would accrue to local and regional minority populations and low-income populations and the general population, since the project would not result in disproportionately high and adverse effects related to air quality before consideration of project benefits, there are no high and adverse effects associated with air quality that would be offset with these particular project benefits.

Safety and Security

Project effects on emergency response times in San Jose were also identified as a key concern of many community members during the environmental justice engagement process. As described under the transportation discussion, temporary and permanent changes due to construction to the roadway network implemented as part of the project would increase regular vehicle (e.g., nonemergency vehicle) travel times in South San Jose along Monterey Road between Bernal Road and Capitol Expressway. The cause of the delay would be the narrowing of Monterey Road due to Alternatives 1, 2, and 3, which would reduce road capacity, resulting in peak hour delays. The increase in regular vehicle travel time in this section of Monterey Road could cause delays in emergency vehicle access and response times. Delays to regular traffic movements would be greatest under Alternative 2, which would result in delays of between 5 and 27 minutes in the northbound direction during peak hours; Alternatives 1 and 3 would result in delays to regular traffic movements of between 8 and 20 minutes in the northbound direction during peak hours. The delays to regular traffic would create congestion that could also affect emergency vehicle response time. Alternative 4 would not narrow Monterey Road like the other



project alternatives, so would not result in delays to emergency vehicle response time during (or after) construction due to road narrowing.

Minority populations or low-income populations are identified in South San Jose (70.4 percent minority and 28.6 percent low-income, which are greater than the reference community). The only location along the project corridor where Alternatives 1, 2, and 3 would narrow roadways and thus affect emergency vehicle response times would be in the minority populations and low-income populations along Monterey Road in South San Jose. Since this is the only location where this adverse effect would occur, before direct mitigation, this would be a disproportionately high and adverse effect on minority populations and low-income populations. The Authority would implement Mitigation Measure SS-MM#3 (Install Emergency Vehicle Detection), which will install emergency vehicle priority treatments. This measure will be effective in improving emergency vehicle response times relative to the narrowing of Monterey Road under Alternatives 1, 2, and 3.

Before direct mitigation, adverse effects on emergency response times would occur in South San Jose under Alternatives 1, 2, and 3 and would be disproportionately borne by minority populations and low-income populations in South San Jose. However, with direct mitigation, traffic effects of on emergency response times will not result in disproportionately high and adverse effects on minority populations and low-income populations. Alternative 4 would not have a disproportionately high and adverse effect during construction on emergency vehicle response times because it would not narrow Monterey Road.

[NOTE TO READER: The Draft EIR/EIS inadvertently included the analysis of operational effects in the construction portion of the impact analysis. This analysis can now be found in Section 5.6.3.2, Operations Impacts, under subsection Safety and Security.]

Parks, Recreation, and School District Play Areas

During the environmental justice engagement process, community members expressed concern regarding encroachment into the Reed and Grant Streets Sports Park in Santa Clara and the connectivity and accessibility of parks and trails in San Jose, including Fuller Park, Los Gatos Creek Trail, and Tamien Park.

At Reed and Grant Streets Sports Park, Alternatives 2 and 3 would require permanent acquisition of 0.82 acre (11 percent of the total park area) of land. This land would be acquired from the southwestern corner of the park adjacent to the right-of-way. Project features (PK-IAMF#1) will maintain access to park and recreation facilities during construction. Mitigation Measure PR-MM#8 will require reconfiguring the Reed and Grant Streets Sports Park soccer fields out of the project right-of-way in order to avoid encroachments that would otherwise make three of the five fields unusable which would diminish use of these facilities, which will avoid high and adverse effects on this park facility. This facility would not be affected by Alternatives 1 and 4.

Fuller Park would not be affected by changes in access but would experience temporary construction easements and permanent property acquisition and construction-related noise from Alternative 4. However, Fuller Park is located within an urban/residential setting and is not considered a noise- or vibration-sensitive park because a certain amount of ambient noise and vibration is already present because of its proximity to the existing UPRR right-of-way. Therefore, users of the park are unlikely to be affected by construction noise and vibration. The project would maintain noise and vibration levels within the FRA requirements and minimize fugitive dust emissions, and the park would remain usable during construction. Temporary project construction for Alternatives 1, 2, and 3 could affect access to Los Gatos Creek Trail, but use of the park would not be precluded and effects would not be adverse. However, the use and user experience of other parks, recreation facilities, and school district play areas would be affected by project construction. Tamien Park would not be affected by changes in access from the two main entrances but would experience temporary construction easements under all alternatives and permanent property acquisition from Alternatives 1, 2, and 3. Tamien Park is located within an urban/residential setting and is not considered a noise- or vibration-sensitive park because a certain amount of ambient noise and vibration is already present because of its proximity to the existing Caltrain right-of-way. Therefore, users of the park are unlikely to be affected by



construction noise and vibration. The project would maintain noise and vibration levels within the FRA requirements and minimize fugitive dust emissions, and the park would remain usable during construction. Permanent acquisition during construction for Alternatives 1, 2, and 3 would impede use of part of the planned multiuse turf/soccer field, potentially rendering the field unusable for its intended purpose. However, PR-MM#7 will require design refinements at Tamien Park during the design phase to reposition the straddle bent column out of the park and reconfigure the column footing, avoiding aboveground park encroachments that would otherwise diminish use of facilities under Alternatives 1, 2, and 3. Alternative 4 would require a utility relocation in Tamien Park, but this would be temporary during construction.

Construction of the project alternatives would result in temporary and permanent adverse effects on the use and user experience of 21 parks, recreational facilities, and school district play areas due to changes to access during construction, noise, and permanent property acquisition which could diminish use of these resources. Table 5-22 shows adverse effects on these resources; their locations are illustrated on Figure 5-19.

Temporary changes to access or use of parks, recreational facilities, and open-space areas would occur at 11 resources under Alternative 1, 16 resources under Alternative 2, 11 resources under Alternative 3, and 8 resources under Alternative 4, as described in Table 5-22. In addition, temporary changes to access or use of school district play areas would occur at three resources under Alternative 1, five resources under Alternative 2, two resources under Alternative 3, and none under Alternative 4. Access to these resources cannot be guaranteed at all times during construction with project design features. The Authority would implement direct mitigation measures to reduce impacts on access or use of parks. Mitigation Measure PR-MM#1, Temporary Restricted Access to Park Facilities During Construction, will involve alternative access via a temporary detour of the trail using existing roadways or other public rights-of-way. Detour signage and lighting will be provided, and alternative routes will meet public safety requirements. Additionally, PR-MM#2, Providing Park Access, will maintain connections to unaffected park portions or nearby roadways during construction. PR-MM#4, Implement Project Design Features, will make certain the project design features from the technical memorandums are implemented. These actions will be documented in technical memorandums prepared by the Contractor that will be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor will implement the activities identified in the technical memorandums. The activities will be incorporated into the design specifications and will be a pre-condition requirement.

The temporary adverse construction-related effects on the parks and recreational facilities would be experienced by all park visitors. Many of these adversely affected parks and recreation facilities are located in areas where the minority populations or low-income populations exceed that of the reference community. However, these temporary construction effects will be reduced because the project will comply with the FTA and FRA guidelines for minimizing construction noise and vibration impacts when work is conducted within 1,000 feet of sensitive receptors. Use of the resources would not be precluded by noise and vibration except in the case of the Villa Mira Monte for outdoor events and Morgan Hill Community and Cultural Center's outdoor amphitheater, which hosts cultural events and concerts sponsored by the City of Morgan Hill.



Table 5-22 Adverse Effects on Parks, Recreation, and School District Play Areas

Map ID	Facility	City	Description of Effect	Alternative 1	Alternative 2	Alternative 3	Alternative 4
San Jo	ose Diridon Station Appro	ach					
1	Reed Street Dog Park	Santa Clara	Permanent acquisition of 0.2 acre (12 percent of park). Temporarily reduced access.		Х	Х	
1b	Reed and Grant Streets Sports Park	Santa Clara	Permanent acquisition of 0.8 acre (11 percent of park). Temporarily reduced access.		Х	Х	
2	Larry J. Marsalli Park	Santa Clara	Temporarily reduced access.		Х	Х	
3	College Park	Downtown San Jose	Temporarily reduced access.	Х	Х	Х	
4	Guadalupe River Trail	Downtown San Jose	Temporarily reduced access.	Х	Х	Х	
5	Fuller Park	Downtown San Jose	Permanent acquisition of less than 0.1 acre (2.6 percent of park).				Х
6	Los Gatos Creek Trail	South San Jose	Alternatives 1, 2, and 3: Temporary realignment or detour would be necessary while the viaduct falsework is built and concrete is poured but can reopen after that is done. No permanent trail realignment would be required. Alternative 4: Construction above the trail on the overhead Caltrain alignment/bridge would be required and would have no temporary or permanent effects.	Х	Х	Х	
7	Highway 87 Bikeway North	South San Jose	Alternatives 1, 2, and 3: Bikeway would need temporary closures and detours for column installation. The trail would be temporarily detoured through adjacent streets during construction. There would also be a minor permanent realignment around 2 columns. Trail would be restored following construction. Alternative 4: Temporary realignment/detour would be needed to modify the abutment under Almaden Expressway, which would result in a short section being temporarily realigned to the east to allow for the new track. The trail would be restored following construction.	X	X	X	X

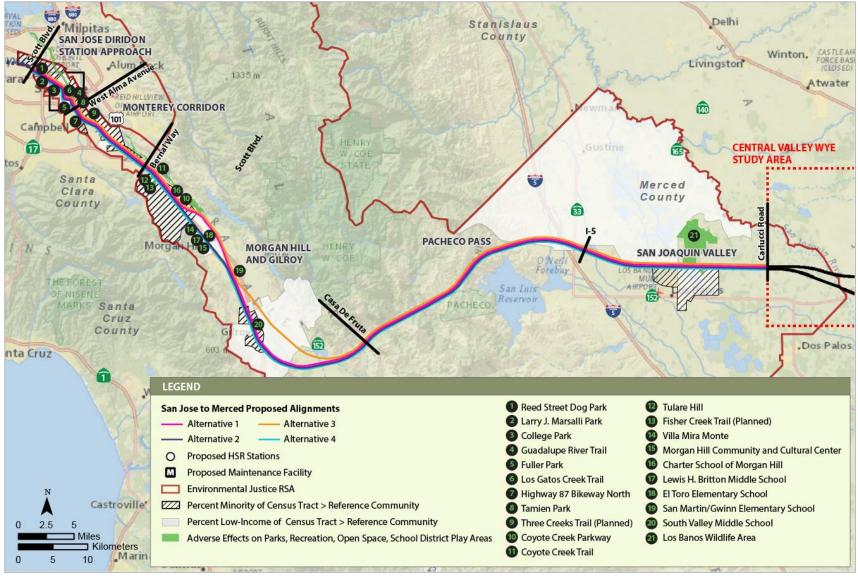


Map ID	Facility	City	Description of Effect	Alternative 1	Alternative 2	Alternative 3	Alternative 4
8	Tamien Park	South San Jose	Alternatives 1, 2, and 3: Permanent acquisition of 0.22 acre (6.3 percent of park) for construction of a straddle bent pole and footing.	X	Х	Х	
Monte	rey Corridor						
9	Three Creeks Trail (Planned)	South San Jose	Project may include minor property acquisition but planned trail would be able to be completed for all project alternatives.	Х	Х	Х	Х
			Temporarily reduced access under Alternatives 1, 2, and 3.				
Morga	n Hill and Gilroy						
10	Coyote Creek Parkway	South San Jose	Alternatives 1 and 3: Permanent acquisition of 2.4 acres (0.2 percent of parkway).	Х	Х	Х	Х
			Alternative 2: Permanent acquisition of 3.3 acres (0.2 percent of parkway).				
			Alternative 4: Permanent acquisition of 0.3 acre (less than 0.1 percent of parkway).				
			Temporarily reduced access.				
11	Coyote Creek Trail	South San Jose	Alternatives 1 and 3: Segments of the bike path would be temporarily realigned to accommodate eastward shift of Monterey Road but the trail should be able to remain open during construction.	X	Х	Х	
			Alternative 2: A portion of the existing trail would be permanently realigned in portion to accommodate the additional right-of-way for HSR and Monterey Road.				
12	Tulare Hill	South San Jose	Temporarily reduced access.		Х		
13	Fisher Creek Trail (Planned)	South San Jose	Temporarily reduced access only if the planned design is implemented before HSR.	Х	Х	Х	Х



Map ID	Facility	City	Description of Effect	Alternative 1	Alternative 2	Alternative 3	Alternative 4
14	Villa Mira Monte	Morgan Hill	Construction noise and vibration would preclude use of the park and gardens for noise-sensitive special events during two construction phases (concrete pour/aerial structure and track installation) under Alternative 2 and during one construction phase (track installation) under Alternative 4.		Х		Х
15	Morgan Hill Community and Cultural Center	Morgan Hill	Permanent acquisition of 1.3 acres (15 percent of park) under Alternative 2 only. Construction noise and vibration would preclude use of the amphitheater during two construction phases (concrete pour/aerial structure and track installation) under Alternative 2 and during one construction phase (track installation) under Alternative 4. Temporarily reduced access under Alternative 2 only.		X		X
16	Charter School of Morgan Hill	Morgan Hill	Temporarily reduced access.	Х	Х	Х	
17	Lewis H. Britton Middle School	Morgan Hill	Temporarily reduced access.		Х		
18	El Toro Elementary School	Morgan Hill	Temporarily reduced access.		Х		
19	San Martin/Gwinn Elementary School	San Martin	Permanent acquisition of 0.1 acre (1.2 percent of school) under Alternative 2 only. Temporarily reduced access.	Х	Х	Х	
20	South Valley Middle School	Gilroy	Permanent acquisition of 0.8 acre (7.8 percent) under Alternative 1 and 1.3 acres (12.3 percent) under Alternative 2. Temporarily reduced access.	Х	X		
21	Los Banos Wildlife Area	Los Banos	Temporarily reduced access.	Х	Х	Х	Х





Sources: U.S. Census Bureau ACS 2010-2014b, 2010-2014d

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Figure 5-19 Adverse Effects on Parks, Recreation, and School District Play Areas



Under Alternatives 2 and 4, use of the Villa Mira Monte for outdoor events and Morgan Hill Community and Cultural Center amphitheater would be temporarily affected by constructionrelated noise. Night-time disruption of concerts or other amphitheater uses because of noise would be avoided through implementation of nighttime limitations in Mitigation Measure NV-MM#1, Construction Noise Mitigation Measures. Daytime use of this facility would be disrupted by construction noise even with application of Mitigation Measure NV-MM#1 because of daytime noise disturbance when construction is occurring near the facility. Additionally, PR-MM#6 will minimize construction noise impacts during noise sensitive special events. The contractor will be required to coordinate with representatives from Morgan Hill Community and Cultural Center and Villa Mira Monte to modify construction as necessary (which may include scheduling modifications) to avoid construction noise disruption of noise sensitive outdoor events (such as concerts and weddings). While Villa Mira Monte and the amphitheater are located in a lowincome area, they serve the broader community and are not facilities that primarily serve lowincome residents. Given that daytime and nighttime use of Villa Mira Monte and the amphitheater would be temporarily disrupted due to noise only when construction is nearby, and would affect all residents equally, this effect would not result in a disproportionately high and adverse effect on minority populations or low-income populations.

While project construction would result in the permanent acquisitions of small portions of existing or planned trail alignment, it would be relatively small and on the exterior edges of the resources, the capacity for use of these resources would not be diminished and all trails would be restored following construction, so they would be able to continue to be used for recreation and access purposes. Consequently, no disproportionate effects would occur relative to trails.

Permanent acquisitions would be required of portions of Fuller Park under Alternative 4 (3 percent), Coyote Creek Parkway under all alternatives (0.2 percent or less), Reed Street Dog Park under Alternatives 2 and 3 (12 percent) and Morgan Hill Community and Cultural Center under Alternative 2 (15 percent). At Fuller Park, Coyote Creek Parkway and Fields Sport Park, the capacity for use of these resources would not be diminished so they would be able to be used for recreation purposes. The permanent acquisitions would not diminish the capacity for use at Reed Street Dog Park or Morgan Hill Community and Cultural Center because the affected portions of the parkland do not contain any recreational facilities or include any of the open space used by dogs for the dog park facility or spaces actively used by patrons of the community center.

Permanent acquisition of land would also be required from San Martin/Gwinn Elementary School under Alternative 2 and at South Valley Middle School under Alternatives 1 and 2. The impact at San Martin/Gwinn Elementary School under Alternative 2 would not preclude the use of the resource or result in diminished capacity for use. The project would also require identification of design features to maintain safe and attractive access for present travel modes to existing facilities (PK-IAMF#1). Similarly, the impact at South Valley Middle School under Alternative 1 would not preclude the use of the resource or result in diminished capacity for use. However, under Alternative 2, the impact would preclude the use of the resource or result in diminished capacity for use, because acquisition of approximately 12 percent of the total play area would constitute a substantial reduction in the total play area available for use and the track would no longer be functional under this alternative.

The concerns raised by minority populations and low-income populations during the environmental justice engagement process would be addressed through project features and identified direct mitigation to minimize temporary disruption during construction and to allow restored functioning of parks, trails, recreational facilities, and play areas after construction so that substantial permanent diminishment of these resources would not occur, with one exception. Under Alternative 2, permanent acquisition at the South Valley Middle School would preclude the use of the resource or result in diminished capacity for use because acquisition of approximately 12 percent of the total play area would constitute a substantial reduction in the total play area available for use and the track would no longer be functional under this alternative.

As a result, the temporary and permanent adverse effects on parks, recreational facilities, and school district play areas would not disproportionately affect minority populations and low-income



populations with the exception of the acquisition at the South Valley Middle School under Alternative 2 before consideration of project benefits.

Consideration of Project Benefits

There are no particular project benefits relative to parks, trails, or open space that would offset the loss of part of the South Valley Middle School sports field with Alternative 2 and thus Alternative 2 would still result in a disproportionately high and adverse effect on minority populations and low-income populations related to the loss of part of the school sports field.

5.6.3.2 Operations Impacts

Project operation would result in permanent adverse effects on populations, including minority populations and low-income populations, associated with traffic congestion, aesthetics and visual quality, and noise and vibration. This section evaluates the potential for these adverse effects to result in a disproportionately high and adverse effect on minority populations and low-income populations after the application of direct mitigation and the consideration of project benefits. Project operations would result in net benefits associated with regional employment growth and long-term air quality improvements.

Transportation

Traffic Delay/Congestion

The San Jose Diridon Station RSA has a higher percentage of low-income populations (32.7 percent) than the reference community, the Monterey Corridor Subsection has a higher percentage of minority populations (70.8 percent) compared to the reference community (63.4 percent) and a higher percentage of low-income populations (28.8 percent) than the reference community (23.3 percent), and the Downtown Gilroy Station RSA has a higher percentage of both minority populations (73.3 percent) and low-income populations (47.3 percent) compared to the reference community.

Project operation would generate additional trips associated with HSR passengers and workers traveling to station areas and maintenance facilities (MOWFs/MOWS). This added traffic, combined with permanent road closures and realignments, and the Monterey Road lane reductions under Alternatives 1, 2, and 3, would result in increased volume, congestion, and delays during the peak hour in the vicinity of the San Jose Diridon Station (under all alternatives), within the Monterey Corridor Subsection (under all project alternatives), and in the vicinity of the Downtown Gilroy Station (under Alternatives 1, 2, and 4). Alternative 4 would also affect traffic delays at peak hours in these and other areas due to increased gate-down time.

As discussed in Section 3.2, the Authority is considering direct mitigation measures to reduce the effects on intersection operations, including installing traffic signals, widening intersection approaches, optimizing existing traffic signals, and optimizing roadway geometry (TR-MM#1a through TR-MM#1x). These measures will reduce permanent effects on intersection operations, but, as shown in Table 5-23 and on Figures 5-20 through 5-22, within minority communities and low-income communities, substantial delays and LOS degradation will remain at 23 intersections within the San Jose Diridon area and in South San Jose under Alternatives 1 and 3, at 24 intersections within the San Jose Diridon, South San Jose, and Gilroy areas under Alternative 2, and at 22 intersections under Alternative 4 in the San Jose Diridon, South San Jose, Morgan Hill, San Martin, and Gilroy areas, after direct mitigation. As adverse effects on intersection operations will continue to occur even with the direct mitigation under consideration, the concerns raised by minority populations and low-income populations about traffic would not be fully addressed through direct mitigation.



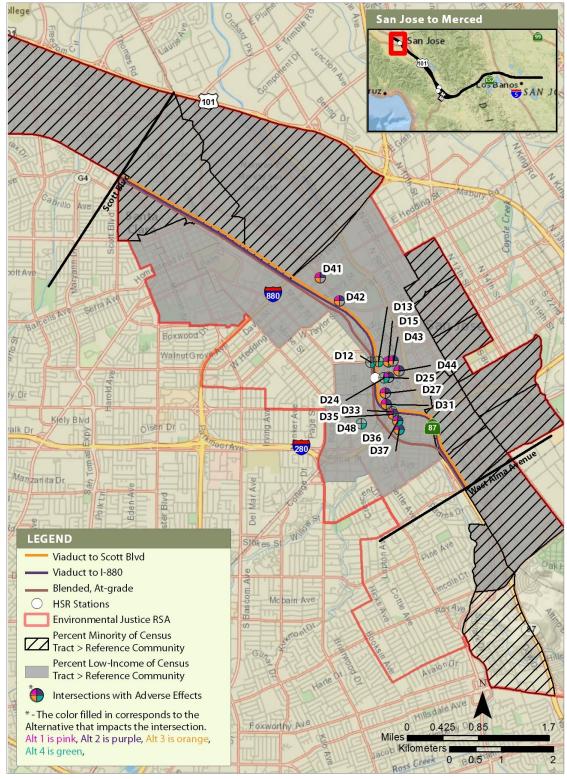
Table 5-23 Adversely Affected Intersection Operations in Minority Communities and Low-Income Communities After Direct Mitigation

	Number of Adverse Intersection Effects ^a						
Community Areas	Alternative 1	Alternative 2	Alternative 3	Alternative 4			
San Jose Diridon	11	11	11	8			
South San Jose	12	11	12	5			
Morgan Hill	-	_	_	1			
San Martin	-	_	_	2			
Gilroy	-	2	_	6			
Total	23	24	23	22			
Number (percentage) in minority areas (reference community minority share is 63.4 percent)	14 (61%)	13 (54%)	14 (61%)	11 (50%)			
Number (percentage) in low- income areas (reference community low-income share is 23.3 percent)	23 (100%)	24 (100%)	12 (100%)	19 (86%)			

Source: Appendix 3.2-A

^a An adverse intersection operations effect is defined for a signalized intersection as a degradation to LOS E or F and an increase in the volume-to-capacity ratio of 0.04 over the baseline condition, and for an unsignalized intersection as a degradation to LOS E or F and an increase in traffic delay of 5 seconds or more.





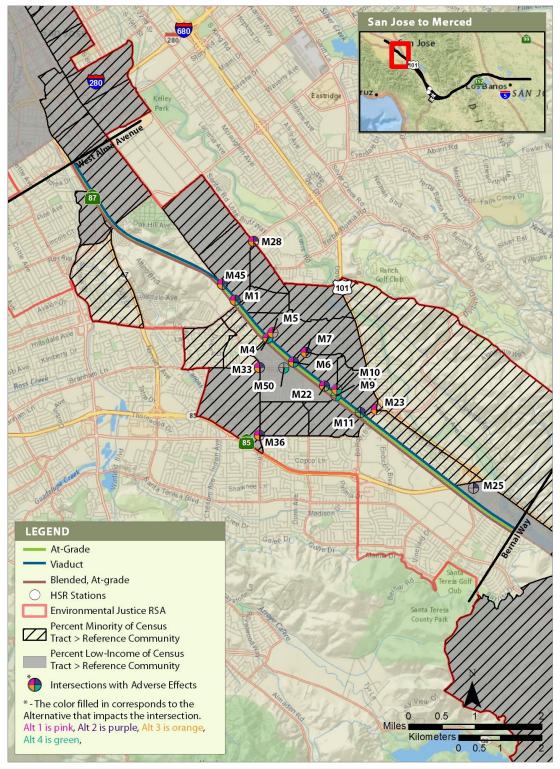
Sources: U.S. Census Bureau ACS 2010-2014b, 2010-2014d; Appendix 3.2-A

Note: The "D#" notations for intersection impacts are the intersection reference numbers.

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Figure 5-20 Adverse Transportation Effects During Operations After Mitigation (San Jose Diridon Station)





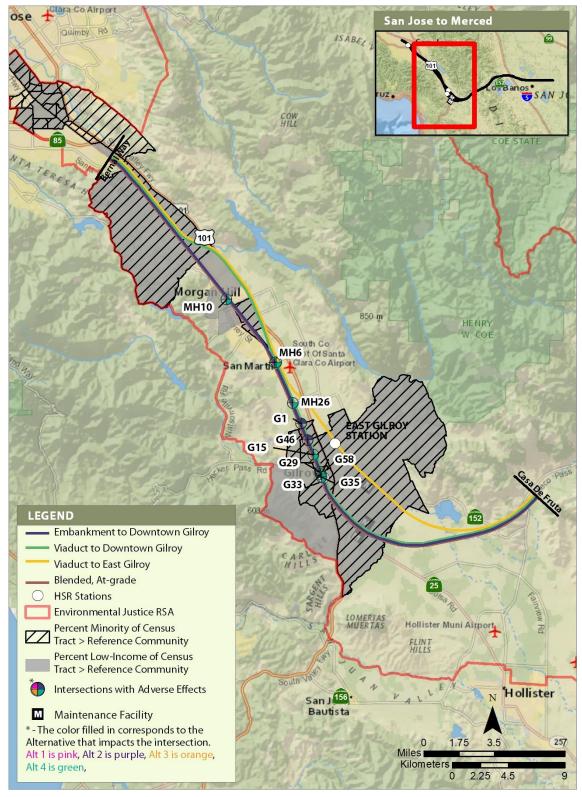
Sources: U.S. Census Bureau ACS 2010-2014b, 2010-2014d; Appendix 3.2-A

Note: The "M#" notations for intersection impacts are the intersection reference numbers.

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Figure 5-21 Adverse Transportation Effects During Operations After Mitigation (Monterey Corridor)





Sources: U.S. Census Bureau ACS 2010–2014b, 2010–2014d; Appendix 3.2-A

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Note: The "MH#" or "G#" notations for intersection impacts are the intersection reference numbers.

Figure 5-22 Adverse Transportation Effects During Operations After Mitigation (Morgan Hill and Gilroy)



With the implementation of direct mitigation, adverse effects will remain in San Jose Diridon and South San Jose under each project alternative, in Morgan Hill with Alternative 4, in San Martin with Alternative 4, and in Gilroy under Alternative 2 and Alternative 4. With Alternatives 1, 2, and 3, adverse traffic delay effects in San Jose Diridon and South San Jose areas (Alternatives 1, 2, and 3) and also in Gilrov with Alternative 2 would be predominantly borne by minority populations and predominantly borne by and disproportionately affect low-income populations. With Alternative 4, adverse traffic delay effects would be predominantly borne by and disproportionately affect low-income populations. These adverse effects would occur in the neighborhoods adjacent to the San Jose Diridon Station in downtown San Jose (all alternatives), Monterey Road in South San Jose (all alternatives), Monterey Road in Morgan Hill and San Martin (all alternatives), and Monterey Road in Gilroy (Alternative 4). As shown in Table 5-23, the effects on minority populations or low-income populations would be of greater magnitude than those experienced elsewhere along the project alignment by non-minority populations (with Alternatives 1, 2 and 3) or by non-low-income populations (with all alternatives). As a result, project operations would result in permanent adverse effects on intersections that would disproportionately affect minority populations (with Alternatives 1, 2 and 3) and low-income populations (with all alternatives) in San Jose, South San Jose, and Gilroy (all alternatives) and Morgan Hill (Alternative 4).

As cited above in Section 5.3.2.2, Methods for Identifying Adverse Effects on Minority Populations and Low-Income Populations, transportation effects on minority populations and low-income populations are considered adverse disproportionate effects on those populations if the transportation effects result in traffic delays on their own and/or if the traffic delays result in the isolation, exclusion, or separation of minority individuals or low-income individuals within a given community from a broader community. The traffic delay effects described above would occur during the peak hours because that is the period when roads are congested. Outside of peak hours, the project may have minor effects on traffic delay, but is not expected to substantially lengthen travel times. As a result, peak-hour traffic delays alone would not isolate, exclude, or separate minority individuals or low-income individuals from the broader community.

Transit

During operations, permanent road closures and reduction in roadway capacity on Monterey Road would shift vehicle trips and reduce capacity along high-frequency VTA bus routes (routes with service every 15 minutes or less), contributing to bus performance delay. The project-related roadway modifications would affect bus on-time performance and operating speeds. The Authority would implement Mitigation Measure TR-MM#2, Install Transit Signal Priority, which will provide bus transit signal priority at all traffic signals in the following locations:

- San Jose Diridon Station Area
 - Cahill Street between West Santa Clara Street and Park Avenue
 - Montgomery Street between West Santa Clara Street and Park Avenue
 - Autumn Street between West Santa Clara Street and Park Avenue
- Monterey Road between Capitol Expressway and Blossom Hill Road
- Gilroy Station Area
- Monterey Road between Seventh Street and 10th Street
- Alexander Street between Seventh Street and 10th Street

This direct mitigation measure will be effective in improving the speed and reliability of bus routes affected by project-related delays by identifying targeted improvements to enhance operations. This direct mitigation measure will substantially reduce adverse effects on bus transit operations during HSR operations so that disproportionately high and adverse effects on minority populations and low-income populations would not occur relative to bus transit for all alternatives.



Consideration of Project Benefits

Project operations would enhance passenger rail transit by increasing passenger rail connections at the San Jose Diridon and Gilroy Stations. Alternative 4 would also enhance Caltrain by electrifying rail service between San Jose and Gilroy.

Implementation of the project would also change regional and statewide travel patterns through the addition of new trips to San Jose Diridon and Gilroy Stations from passengers and HSR workers traveling to the station areas and the shift of vehicle trips from airports and other intercity travel hubs to train trips. Shifts and changes in travel patterns would result in a benefit through a reduction in vehicle miles traveled (VMT) on roadways, freeways, and intersections and less overall congestion within the project extent through decreases in long-range vehicle trips and increases to ridership of the HSR and to connecting transit services. Under all four project alternatives, the project would reduce annual VMT within Santa Clara County by up to 230 million miles (a reduction of 1.7%) in 2040. The reduction of VMT within Santa Clara County would primarily occur on the major highways (US 101, SR87, US 280, SR 85, and SR 152) and major arterials feeding those highways due to reduction in long-distance travel by diversion of passenger vehicle trips to train trips. Residents along the project alignment, including minority populations and low-income populations in Santa Clara, San Jose, Morgan Hill, and Gilroy would benefit from reduced traffic on the major highways and arterials since they often use these roadways for daily commutes, access to education, recreation, services, social interaction, and other regional travel. Based on the current population of the three county RSA used in this evaluation, this is equivalent to approximately 550 miles per person.

The intersections adversely affected by the different alternatives (after direct mitigation) would have 2040 PM peak-hour volumes ranging from San Jose Diridon (4,000 to 5,000 vehicles/hour). South San Jose (1,300 to 6,300 vehicles/hour), Morgan Hill (3,600 vehicles/hour), to Gilroy (200 to 2,300 vehicles/hour), depending on the intersection. In contrast, in 2040, the project would result in daily ridership of 30,900 at the San Jose Diridon Station and 12,400 at the Gilroy Station. The minority populations and low-income populations that would be affected by operational traffic delays near the San Jose Diridon Station, along the Monterey Corridor in South San Jose, in Morgan Hill, and in Gilroy live closer to the San Jose and Gilroy stations than the average individual in the reference community. The maximum distance from minority areas or low-income areas in San Jose, Morgan Hill, and Gilroy is 13 miles to a HSR station. Residents in the San Jose Diridon community area would have multiple intersections affected by the project alternatives but also would be the closest to the Diridon Station (with many able to walk to the station). While residents in South San Jose, who would also be affected by traffic delays due to project alternatives, they would also be located only 6 to 8 miles from the Diridon Station and could also use Caltrain to reach the nearby HSR stations from Caltrain stations in South San Jose (Capitol and Blossom Hill stations). In Morgan Hill, Alternative 4 would only adversely affect only one intersection after direct mitigation (Monterey Road / E. Main Ave). Residents in Morgan Hill would be located approximately 9 to 11 miles from the Gilroy Station and also could access the HSR system via the Morgan Hill Caltrain Station. Residents in the Gilroy community area would have multiple intersections affected by Alternative 4, but also would be the closest to the Gilroy Station with residents in neighborhoods near the adversely affected intersections being within 0.5 to 2.5 miles of the Gilroy Station. Consequently, minority populations and low-income populations that would experience operational traffic delays would have an offsetting benefit of relatively close proximity to a HSR station than the reference community.

The project would also encourage modal shifts to utilize rail and connected transit systems, which would provide mobility benefits to minority populations and low-income populations that are disproportionately dependent on transit services including those located in areas affected by the project.

While some traffic delays would occur on a localized basis, the long-term benefit of relative ease of access to the HSR system for intrastate travel and increased mobility due to modal shifts both locally and more broadly with implementation of HSR service would offset operational traffic delay effects for all alternatives. Consequently, with consideration of project benefits, the project



alternatives would not result in disproportionately high and adverse effects on minority populations and low-income populations for traffic delay for any of the project alternatives.

Aesthetics and Visual Quality

The operation of HSR trains on aerial structure adjacent to residential areas would increase nighttime light levels as a result of the spillover of light from passing trains and maintenance equipment. This would result in a new source of light that would adversely affect nighttime views. The project as designed would direct lighting downward to minimize lighting spillover, but the presence of nighttime light where light did not previously exist would not be eliminated. Alternatives 1 and 3, running on viaduct from San Jose to Gilroy, would have more light spillover into residential areas, resulting in more impacts from increased light levels than Alternative 2 or 4, which would run at grade and train light spillover would be contained by existing vegetation and noise barriers. Alternative 4 would operate in blended service with Caltrain in urbanized areas, with lights from HSR similar to lights from existing passenger and freight service, resulting in the least impact of the four alternatives.

The Authority would implement AVQ-MM#4 to provide landscape screening to obscure HSR infrastructure from residential viewers. In addition, where NV-MM#3 will place opaque sound barriers, light spillover will be blocked by the barriers. These measures will help block light during operations and reduce impacts on adjacent populations, including minority populations and low-income populations, but not below the level anticipated to cause visual impacts. Adverse visual impacts will remain after direct mitigation and would be distributed along the length of the project alignments. Minority populations and low-income populations and non-minority populations and non-low-income populations would be affected by increased nighttime light levels due to project operations. As a result, no disproportionately high and adverse effect on minority populations and low-income populations associated with train operations would occur for any of the project alternatives.

Consideration of Project Benefits

As described above, implementation of the HSR project would result in less widening of major highways, which would avoid associated visual aesthetic effects of highway widening, which would benefit minority populations and low-income populations that reside adjacent to these highways. Implementation of the HSR project would also result in less demand for future airport expansion and associated visual aesthetic effects of adding runways and gates, which could benefit minority populations and low-income populations that reside adjacent to airports. However, since there are no operational disproportionately high and adverse visual effects, there are no disproportionately high and adverse visual effects to offset.

Safety and Security

During the environmental justice engagement process, participants raised concerns regarding the safety associated with train speeds and road crossings, particularly the safety of school children crossing Monterey Road and the need for additional safety precautions. The HSR design would include an automatic train control (ATC) system that would include automatic train functions of separation of trains, work zone protection, and overspeed detection and prevention to keep the train at safe speeds and in compliance with the FRA-mandated positive train control (PTC) requirements. Where the HSR would operate at speeds of 125 miles per hour or more and would be adjacent to existing freight railroads, intrusion protection barriers would be required, and where blended operations are necessary, speeds would be limited to less than 110 miles per hour.

The project would transition from a blended system to a fully dedicated track system south of Scott Boulevard in Santa Clara for Alternatives 1, 2, and 3. Alternative 1 would transition to a fully dedicated track system at I-880 (south of Scott Boulevard). Alternatives 2 and 3 would transition to a fully dedicated track system just south of Scott Boulevard; Alternative 4 would transition to a fully dedicated track system at the Downtown Gilroy Station.



Roads crossing the HSR alignment for Alternative 1 would be fully grade-separated from the right-of-way. Alternative 1 includes a blended track system between Scott Boulevard and I-880 in the San Jose Diridon Station Approach Subsection. Alternative 4 would transition from a blended track system to a fully grade-separated system in Gilroy. Under Alternative 4 there would be 2 atgrade crossings in the San Jose Diridon Station Approach Subsection (at Auzerais Avenue and Virginia Street in San Jose), 5 at-grade crossings in the Monterey Corridor Subsection, and 22 atgrade crossings in the Morgan Hill and Gilroy Subsection. The Pacheco Pass and San Joaquin Valley Subsections for all project alternatives would be fully grade separated.

Under Alternative 4, four-quadrant gates (quad gates) would be installed on all at-grade crossings between Scott Boulevard in Santa Clara and Gilroy in the San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections.

The HSR right-of-way would be fully grade separated for Alternatives 2 and 3, which would prevent motor vehicles, bicycles, and pedestrians from crossing the tracks. As a result, there would be safety benefits from the grade-separated system which would be experienced throughout the environmental justice RSA. Installation of right-of-way fencing, quad gates, median barriers, and roadway channelization for the at-grade crossings for Alternative 4 would control pedestrian, bicycle, and vehicle access to the at-grade crossings. Grade separation proposed in Alternatives 2 and 3 and the contemporary safety and signaling systems that would be incorporated into the project design as part of Alternative 4 would address the safety and security concerns raised during environmental justice engagement. Because there would be no residual railway safety or security adverse effects along the project alignments, there would also be no disproportionately high and adverse effects related to at-grade crossing safety or other railroad safety for any of the project alternatives at any location adjacent to the project alternative alignments, including in minority areas or low-income areas and in non-environmental justice communities.

Project effects on emergency response times in San Jose were also identified as a key concern of many community members during the environmental justice engagement process. As described under the transportation discussion, permanent changes to the roadway network implemented as part of the project under Alternatives 1, 2, and 3 would increase vehicular travel times in South San Jose along Monterey Road between Bernal Road and Capitol Expressway. The increase in vehicle travel time in this section of Monterey Road would cause delays in emergency vehicle access and response times. Delays would be greatest under Alternative 2, which would result in delays of between 5 and 27 minutes in the northbound direction during peak hours; Alternatives 1 and 3 would result in delays of between 8 and 20 minutes in the northbound direction during peak hours. These delays would adversely affect the public health and welfare of residents in adjacent neighborhoods. The increases in travel time under Alternative 4 are somewhat lower than for the other three project alternatives, particularly during the AM peak hour. Alternative 4 would not narrow Monterey Road like the other project alternatives, plus the additional gate-down time necessitated by an at-grade alternative could benefit north-south travel under some conditions.

Under all alternatives, the addition of HSR service at the San Jose Diridon Station would generate a total of approximately 1,100 peak hour vehicle trips, causing an adverse impact at multiple intersections in the general vicinity of the station. The added station traffic generated by HSR service under all alternatives would cause adverse impacts on fire station emergency vehicle response times resulting in increased delay of up to 30 seconds for fire station emergency response times. Under Alternatives 1, 2, and 4, the addition of HSR service at Gilroy Station would generate a total of approximately 690 peak hour vehicle trips, causing an adverse impact at multiple intersections in the general vicinity of the station. The added station traffic generated by HSR service would cause adverse impacts on fire station emergency vehicle response times resulting in increases of more than 30 seconds to fire station emergency response times.

In addition, the potential impacts of additional gate-down time on fire station emergency vehicle response times were assessed throughout the corridor for Alternative 4. The analysis indicates a potential for impacts of 30 seconds or more on emergency response times to fire station



response areas at 26 at-grade crossings along the project extent. Areas that would experience delays in emergency vehicle response of 30 seconds or more due to increased gate-down time include the communities of South San Jose, San Martin, and Gilroy. The areas with potential delays greater than 30 seconds are shown in Figures 5-23 and 5-24.

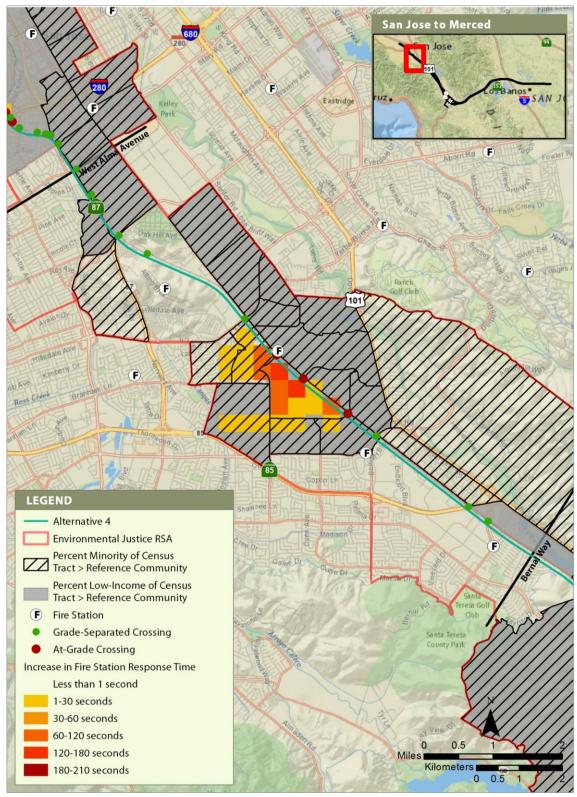
Overall, increased traffic in station areas (all alternatives), reconstruction and narrowing of Monterey Road (Alternatives 1, 2, and 3 only), and increased gate-down time at at-grade crossings (Alternative 4 only) would result in fire station emergency vehicle response delay of 30 seconds or more near the San Jose Diridon Station under all alternatives; in South San Jose under all alternatives; in San Martin under Alternative 4; and in Gilroy under Alternatives 1, 2, and 4.

Of these, minority populations or low-income populations are identified in San Jose (34.5 percent low-income), South San Jose (73.3 percent minority and 28.6 percent low-income), and Gilroy (72.3 percent low-income and 40.8 percent low-income). The population of San Martin is not identified as a minority population or low-income population.

The Authority would implement direct mitigation measures (SS-MM#3, Install Emergency Vehicle Detection and SS-MM#4, Install Emergency Vehicle Response Improvements) which will install emergency vehicle priority treatments and install other vehicle response improvements, as necessary to address substantial increases of more than 30 seconds in emergency response time. Mitigation Measure SS-MM#3 will be effective in improving emergency vehicle response times by providing funding for emergency vehicle priority treatments and will reduce adverse impacts on emergency response relative to Monterey Road narrowing (Alternatives 1, 2, and 3). Mitigation Measure SS-MM#4 will be effective in addressing adverse effects on emergency vehicle response time at the San Jose Diridon Station (all alternatives) and the Downtown Gilrov Station (Alternatives 1, 2, and 4). Mitigation Measure SS-MM#4 will also reduce adverse effects related to increased gate-down time at the at-grade crossings in South San Jose, San Martin, and Gilroy with Alternative 4; however, this measure may not fully mitigate certain fire station response time impacts related to increased gate-down time at certain at-grade crossings in the affected jurisdictions, if these jurisdictions choose not to implement and operate emergency vehicle priority treatments using construction funds and initial 5-year operational funding provided by the Authority.

Under Alternative 4 with direct mitigation, adverse effects on emergency response times could occur in South San Jose, in San Martin, and in Gilroy. Based on an analysis of the areas of potential delay in emergency vehicle response times with Alternative 4, these adverse effects would be disproportionately borne by low-income populations in South San Jose and Gilroy (61 percent of the affected areas are low-income areas) but would not disproportionately affect minority populations (46 percent of the affected areas are minority areas). San Martin does not have minority populations or low-income populations in a greater percentage than in the reference community.





Sources: U.S. Census Bureau ACS 2010–2014b, 2010–2014d; Section 3.11

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Figure 5-23 Fire Station Emergency Vehicle Response Time Delay, Monterey Corridor (Alternative 4)



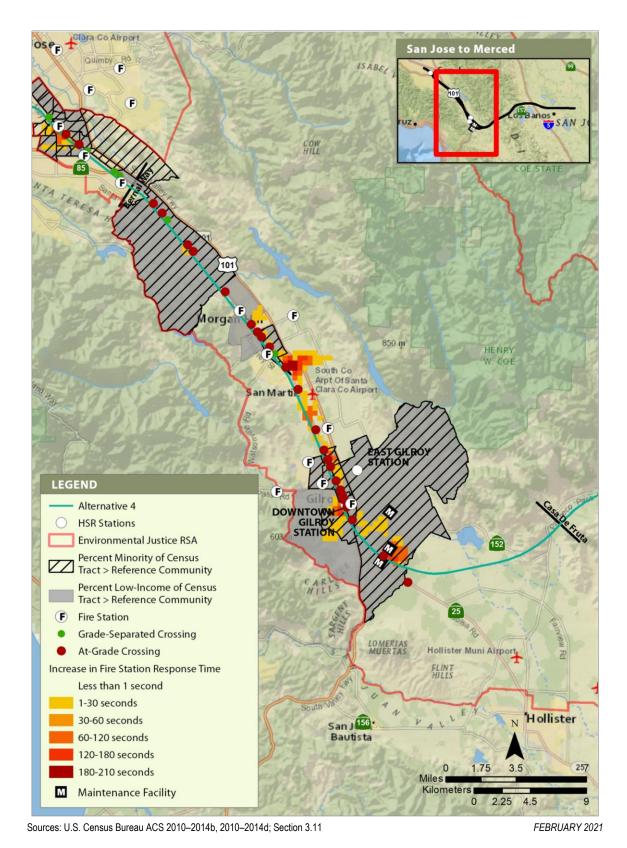


Figure 5-24 Fire Station Emergency Vehicle Response Time Delay, Morgan Hill and Gilroy (Alternative 4)



As described in Section 3.11, if cities choose not to implement and operate emergency vehicle priority treatments using construction funds and new fire station initial 5-year operational funds provided by the Authority per Mitigation Measure SS-MM#4 for Alternatives 4, adverse impacts will remain in South San Jose, San Martin, and Gilroy. In that case, some of the site-specific traffic direct mitigation measures identified in Section 3.2 will be required to help reduce traffic congestion or delays at intersections adjacent or near at-grade crossings during peak hours and at certain intersections where the project would affect emergency vehicle response times due to increased gate-down time with Alternative 4. The following traffic direct mitigation measures will help to reduce peak-hour traffic delays at intersections adjacent to or near at-grade crossings with adverse emergency vehicle response time delays under Alternative 4:

- TR-MM#1e: Monterey Road/Chynoweth Avenue—Roeder Road—Widen and Reconfigure
- TR-MM#1t: Monterey Road/San Martin Avenue—Restripe Southbound Approach
- TR-MM#1u: Monterey Road/IOOF Avenue—Widen and Reconfigure Southbound Approach
- TR-MM#1w: Chestnut Street/Luchessa Street—Reconfigure Southbound Approach
- TR-MM#1x.6: East Main Avenue/Depot Street—Install Traffic Signal
- TR-MM#1x.8: Llagas Road/San Martin Avenue—Install Traffic Signal
- TR-MM#1x.9: School Access/IOOF Avenue—Install Traffic Signal
- TR-MM#1x.10: SR 25/Bloomfield—Install Traffic Signal

Mitigation Measures SS-MM#3 and SS-MM#4 will mitigate all of the adverse effects on emergency vehicle response times under Alternatives 1, 2, and 3 and the adverse effects on emergency vehicle response times associated with the San Jose Diridon Station and Gilroy Station for all alternatives. However, relative to Alternative 4, emergency vehicle response times could increase by 30 seconds or more due to increased gate-down times at the at-grade crossings in South San Jose and Gilroy if the local jurisdictions do not implement the improvements identified in Mitigation Measure SS-MM#4. Therefore, the concerns raised by minority populations and low-income populations during the environmental engagement process, described in Section 5.5 and in Appendix 5-B in Volume 2, about emergency vehicle response times may not be fully addressed through Mitigation Measure SS-MM#4, depending on what improvements are actually implemented and operated by local jurisdictions.

As a result, project effects on emergency response times would disproportionately affect low-income populations with Alternative 4 before consideration of project benefits.

Consideration of Project Benefits

Project benefits would involve a safer mode of intrastate travel than personal vehicles for minority populations and low-income populations between San Jose and Gilroy who would have ready access to HSR stations, which would improve safety for longer trips utilizing the HSR service compared to the No Project Alternative. The project would also encourage modal shifts to utilize rail and connected transit systems, which are safer modes of travel than personal vehicles and would result in increased safety for trips displaced from personal vehicles to transit. Alternative 4 would also provide for improvements to Caltrain/UPRR corridor rail safety through installation of fencing, quad gates, and channelization, which would help to improve safety conditions relative to the existing railroad corridor through minority communities and low-income communities, given that they would improve the control on access into and across railway corridors which helps to reduce the potential risk of injury and accidents.²¹

²¹ As discussed in Section 3.11, Safety & Security, Alternative 4 would involve installation of seven new quad gates and improvements to 74 existing gates, in addition to right-of-way fencing, traffic signalization (where not currently present), traffic signal preemption (where not currently present), obstacle detection, and integration of at-grade crossing functions with the ATC system. Studies (Cooper and Ragland 2012; FRA 2015) have shown that a large portion of accidents that occur at at-grade crossings are due to driver behavior or inattention. FRA estimates that 94 percent of train-vehicle collisions can be attributed to driver behavior or poor judgement (FRA 2015). A 2012 California Department of Transportation (Caltrans) study indicated that a key solution to rail crossing crashes is to remove the ability for the driver to engage in a potentially faulty decision-making process by making it more difficult for the driver to bypass lowered gates.



Despite the project safety benefits, in the event local communities do not choose to implement emergency vehicle response improvements included in Mitigation Measure SS-MM#4 funded or otherwise supported by the Authority, the project safety benefits are not considered sufficient to offset the disproportionately high and adverse effects of Alternative 4 on low-income populations related to delays in emergency vehicle response times in the local area given the importance of emergency vehicle response times to community safety.

Noise and Vibration

Noise

During the environmental justice engagement process, noise was raised as a key concern in most of the communities, and was particularly important to residents in San Jose, who experience noise associated with existing Caltrain operations and the Norman Y. Mineta San Jose International Airport. Operation of the project would generate noise levels above existing ambient levels as a result of train operations and increased traffic near the San Jose Diridon Station and in South San Jose along the Monterey Corridor and at the Gilroy MOWF.

Table 5-24 shows the number of severe noise impacts as a result of train operations under each of the project alternatives by subsection and by city and community after the application of direct mitigation. For this analysis, severe noise impacts are considered "high and adverse effects," but moderate noise impacts are not because, as explained in Section 3.4, Noise and Vibration, with moderate noise impacts, "the change in noise level is noticeable to most people, but may not be sufficient to cause strong, adverse reactions from the community." The DDV and TDV would result in a slight increase the number of severe noise impacts.

Noise direct mitigation will include the application of noise barriers, sound insulation, or acquisition of easements on properties severely affected by noise in accordance with the criteria established in the Authority's noise and vibration direct mitigation guidelines (NV-MM#3, Implement Proposed California High-Speed Rail Project Noise Mitigation Guidelines). Mitigation also establishes requirements for additional noise analysis during final design, should any changes to final design or vehicle specifications change assumptions underlying the noise analysis (NV-MM#5, Vehicle Noise Specification; NV-MM#6, Special Track Work at Crossovers and Turnouts; and NV-MM#7, Additional Noise Analysis Following Final Design).

Median separators and long-arm gates or four-quadrant gates have been shown to reduce the potential for collisions by removing or substantially deterring the ability of vehicles to bypass two-quadrant gates. The addition of a four-quadrant gate system was indicated in one study as providing a reduction of the likelihood of a collision by 82 percent compared to at-grade crossings with only two-quadrant gates (Cooper and Ragland 2012).



Table 5-24 Operational Noise Impacts After Direct Mitigation with Noise Barriers by Alternative

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Subsection and City/Community	Severe	Severe	Severe	Severe
San Jose Diridon Station Approach	3	0	0	37
Santa Clara	0	0	0	1
San Jose	3	0	0	36
Monterey Corridor	0	0	0	20
South San Jose	0	0	0	20
Morgan Hill and Gilroy	120 (127)	86 (94)	65 (73)	125 (134)
San Jose	0	7	0	1
Morgan Hill	0	0	0	33
San Martin	0	0	0	0
Gilroy	7	10	0	46
Unincorporated Santa Clara County	98 (99)	54 (56)	52 (55)	29 (33)
Unincorporated San Benito County	15 (21)	15 (21)	13 (18)	16 (21)
Pacheco Pass	10 (11)	10 (11)	10 (11)	10 (11)
Unincorporated Santa Clara County	5 (6)	5 (6)	5 (6)	5 (6)
Unincorporated Merced County	5	5	5	5
San Joaquin Valley	99 (101)	99 (101)	99 (101)	99 (101)
Los Banos	0	0	0	0
Unincorporated Merced County	99 (101)	99 (101)	99 (101)	99 (101)
Environmental Justice RSA Total	232 (242)	195 (206)	174 (185)	291 (303)

Impacts associated with the design variants are shown in parentheses. The DDV affects Alternative 4 within the San Jose Diridon Station Approach Subsection; the TDV affects all alternatives within the Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections. RSA = resource study area



The Authority also analyzed the effect of potentially implementing Quiet Zones in addition to noise barriers. As explained in Section 3.4, Noise and Vibration, only local jurisdictions can determine whether or not to implement a Quiet Zone per federal statutes. Consequently, the Authority cannot mandate the implementation of a Quiet Zone; only local jurisdictions can. If both are implemented, noise direct mitigation with Quiet Zones and noise barriers would reduce the total number of severe noise impacts. With the application of direct mitigation with Quiet Zones and noise barriers, Alternative 1 would have residual severe noise impacts on the greatest number of sensitive receptors (224 [234 with the DDV and TDV]), followed by Alternative 2 (195 [206 with the DDV and TDV]), Alternative 4 (192 [205 with the DDV and TDV]), and Alternative 3 (174 [185 with the DDV and TDV]) (Table 5-25). Figure 5-26 illustrates the operational noise impacts by city and community using proportional symbols to represent the relative number of impacts that could be mitigated with Quiet Zones and noise barriers. Section 3.4, Figures 3.4-42 through 3.4-44b show the specific locations of residual severe noise impacts with implementation of Quiet Zones and noise barriers. If local jurisdictions do not choose the implement Quiet Zones, then the impacts would be those indicated above with noise barriers only.

The proposed noise direct mitigation, which is described in detail in Section 3.4, was analyzed in two ways: (1) noise mitigation with noise barriers, and (2) noise mitigation with a combination of Quiet Zones and noise barriers. Under the FRA's Train Horn Rule²² trains must begin to sound horns at least 15 seconds, and no more than 20 seconds, in advance of all public grade crossings. However the rule also allows local jurisdictions to implement Quiet Zones to cease sounding warning horns as they approach at-grade crossings (NV-MM#4, Support Potential Implementation of Quiet Zones by Local Jurisdictions). The Authority cannot speculate how many local jurisdictions will establish Quiet Zones. The implementation of noise direct mitigation with noise barriers only will reduce the total number of severe and moderate noise impacts by 41 percent for Alternative 1, 62 percent for Alternative 2, 18 percent for Alternative 3, and 48 percent for Alternative 4. With the application of direct mitigation with noise barriers only, Alternative 4 will have residual severe noise impacts on the greatest number of sensitive receptors (291 [303 with the DDV and TDV]), followed by Alternative 1 (232 [242 with the DDV and TDV]), Alternative 2 (195 [206 with the DDV and TDV]), and Alternative 3 (174 [185 with the DDV and TDV]). Figure 5-25 illustrates the severe operational noise impacts by city and community using proportional symbols to represent the relative number of impacts mitigated with noise barriers. Section 3.4, Figures 3.4-33 through 3.4-41b show the specific locations of residual severe noise impacts with implementation of Quiet Zones and noise barriers.

²² 49 CFR Part 222.

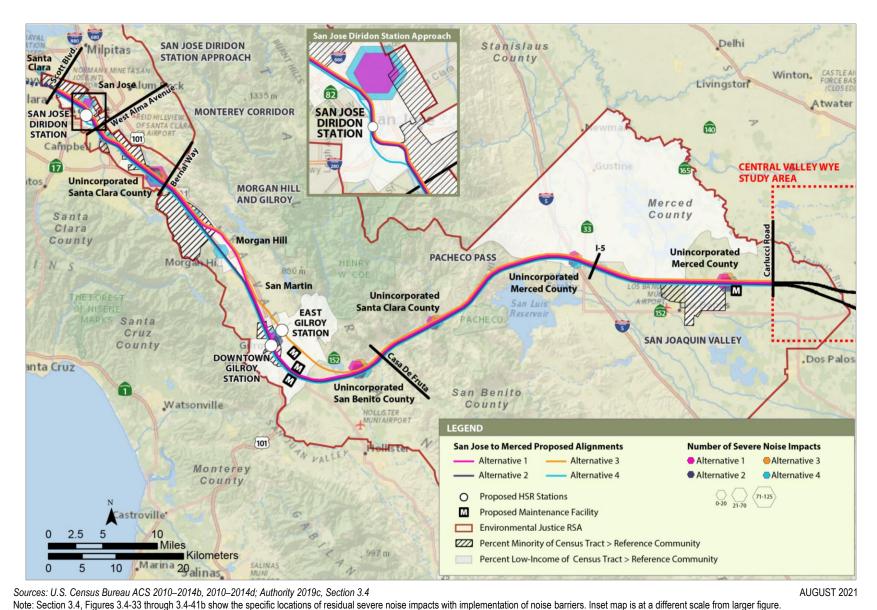


Table 5-25 Operational Noise Impacts After Direct Mitigation with Quiet Zones and Noise Barriers by Alternative

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Subsection and City/Community	Severe	Severe	Severe	Severe
San Jose Diridon Station Approach	3	0	0	24
Santa Clara	0	0	0	1
San Jose	3	0	0	23
Monterey Corridor	0	0	0	8
South San Jose	0	0	0	8
Morgan Hill and Gilroy	112 (119)	86 (94)	65 (73)	51 (61)
San Jose	0	7	0	0
Morgan Hill	0	0	0	0
San Martin	0	0	0	0
Gilroy	7	10	0	16
Unincorporated Santa Clara County	90 (91)	54 (56)	52 (55)	19 (24)
Unincorporated San Benito County	15 (21)	15 (21)	13 (18)	16 (21)
Pacheco Pass	10 (11)	10 (11)	10 (11)	10 (11)
Unincorporated Santa Clara County	5 (6)	5 (6)	5 (6)	5 (6)
Unincorporated Merced County	5	5	5	5
San Joaquin Valley	99 (101)	99 (101)	99 (101)	99 (101)
Los Banos	0	0	0	0
Unincorporated Merced County	99 (101)	99 (101)	99 (101)	99 (101)
Environmental Justice RSA Total	224 (234)	195 (206)	174 (185)	192 (205)

Impacts associated with the design variants are shown in parentheses. The DDV affects Alternative 4 within the San Jose Diridon Station Approach Subsection; the TDV affects all alternatives within the Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections. RSA = resource study area

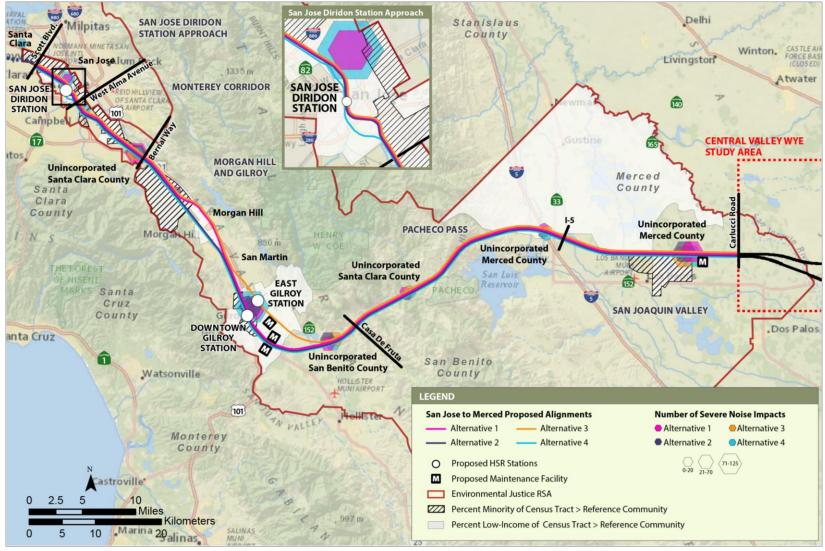




on 3.4, Figures 3.4-33 through 3.4-4 to show the specific locations of residual severe hoise impacts with implementation of hoise barriers. Inset map is at a different scale from larger figure.

Figure 5-25 Mitigated Operational Noise Impacts (Noise Barriers)—Proportional Representation by Alternative and Community





Sources: U.S. Census Bureau ACS 2010–2014b, 2010–2014d; Authority 2019c, Section 3.4

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Note: Section 3.4, Figures 3.4-42 to 3.4-44b show the specific locations of residual severe noise impacts with implementation of Quiet Zones and noise barriers. Inset map is at different scale from larger figure.

Figure 5-26 Mitigated Operational Noise Impacts (Noise Barriers and Quiet Zones)—Proportional Representation by Alternative and Community



As discussed in Section 3.4, implementation of sound insulation at receptors with residual severe noise impacts after implementation of noise barrier mitigation (and potentially quiet zone implementation by local jurisdictions) will substantially reduce indoor noise levels at most affected receptors to less than the 45 A-weighted decibel (dBA) threshold for indoor noise. For example, for Alternative 4 with the DDV/TDV, there will be 303 severe noise impacts with noise barrier mitigation only; with sound insulation installation, of those 303 impacts, only 14 (less than 5 percent) are estimate to likely have interior noise levels greater than the 45 dBA threshold for indoor noise levels. With sound insulation, while severe outdoor noise impacts may remain for some receptors, nearly all of those receptors are estimated to have indoor noise levels meeting the acceptable threshold.

Also, as discussed in Section 3.4, if a substantial noise reduction cannot be completed through installation of noise barriers or installing sound insulation, the Authority would consider acquiring a noise easement on properties with a severe impact on a case-by-case basis. An agreement between the Authority and the property owner can be established wherein the property owner releases the right to petition the Authority regarding the noise level and subsequent disruptions. This would take the form of an easement that would encompass the property boundaries to the right-of-way of the rail line. The Authority would consider this measure only in isolated cases where other direct mitigation is ineffective or infeasible.

Additionally, operation of the project would generate additional traffic and traffic-related noise that would be similar for all four project alternatives. Traffic noise level increases greater than or equal to 3 decibels above existing levels would occur at 12 roadway segments in 2040 (5 roadway segments near the San Jose Diridon Station under Alternatives 1 through 3 and 4 roadway segments under Alternative 4; 6 roadway segments along Monterey Road in South San Jose under each project alternative; 1 roadway segment near the South Gilroy MOWF under Alternatives 1, 2, and 4 and 1 roadway segment near the East Gilroy MOWF under Alternative 3; and 1 roadway segment near the Downtown Gilroy Station under Alternative 4).

On an end-to-end basis, Alternative 4 will have the highest percentage of residual severe noise impacts after noise barrier mitigation occur in minority areas (46 percent), followed by Alternative 3 (20 percent), Alternative 2 (14 percent), and Alternative 1 (10 percent), but severe noise impacts would not be predominantly borne by or disproportionately affect minority populations under any of the alternatives. On an end-to-end basis, Alternative 4 will have the highest percentage of residual severe noise impacts after noise barrier mitigation occur in low-income areas (66 percent), followed by Alternative 3 (43 percent), Alternative 2 (35 percent), and Alternative 1 (28 percent). Severe noise impacts after noise barrier mitigation would be disproportionately borne by low-income populations with Alternative 4. Severe noise impacts would disproportionately affect low-income populations under all of the alternatives.

In order to reduce noise impacts as much as feasible, the Authority would also implement Mitigation Measure EJ-MM#1 as follows:

Mitigation Measure EJ-MM#1: Minimize Residual Severe Noise Impacts in Environmental Justice Communities. To minimize residual severe noise impacts in environmental justice communities (as defined by having low-income populations or minority populations greater than in the reference community), the final technical report required per Mitigation Measure NV-MM#3 will include an assessment of whether remaining severe noise impacts, after application of recommended noise treatments and direct mitigations, may disproportionately impact low-income populations or minority populations. For impacted receptors within environmental justice communities, property owners will be notified of the potential noise impact and the Authority's proposed noise treatments and direct mitigations for their property. If the report finds that severe noise impacts may disproportionately impact low-income populations or minority populations, the Authority will prepare an additional report to assess whether any additional practicable measures may be undertaken to avoid, eliminate, or reduce the noise impacts that disproportionately impact environmental justice communities. The Authority will seek



and consider the input of affected sensitive receptors in low-income populations or minority populations prior to finalizing the report.

Mitigation with noise barriers per Mitigation Measure NV-MM#3 and Mitigation Measure EJ-MM#1 would not fully address the concerns raised during the environmental justice engagement process regarding noise and vibration, and severe noise impacts would disproportionately affect low-income populations for all alternatives (and be predominantly borne by low-income populations with Alternative 4). Specific locations of severe noise impacts with noise direct mitigation only are discussed in Table 5-24, Table 5-25, Figure 5-25, Figure 5-26, and in figures in Section 3.4. Adverse noise effects with noise barrier mitigation only would disproportionately affect low-income populations in the following areas: Santa Clara (Alternative 4); North San Jose (Alternative 1); the San Jose Diridon area (Alternative 4); the Gardner/Willow Glen area in San Jose (Alternative 4); the Washington, Guadalupe, Tamien, and Alma/Almaden areas in San Jose (Alternative 4); South San Jose (Alternative 4); Morgan Hill (Alternative 4); Gilroy (Alternatives 1, 2, and 4); and San Joaquin Valley (all alternatives).

Mitigation Measure NV-MM#3 includes the potential for building sound insulation, which will likely result in acceptable indoor noise levels with Alternative 4 at all but 14 locations, and noise easements. Mitigation Measure EJ-MM#1 will require additional evaluation during the design phase to assess if there are any additional feasible measures to address any remaining disproportionately high and adverse effects on low-income populations (after application of NV-MM#3) and additional consultation with those populations regarding noise direct mitigation.

Although direct mitigation will substantially reduce noise levels (both outdoor and indoor), it is not fully assured that severe operational noise impacts could be sufficiently reduced to avoid disproportionately high and adverse effects on low-income populations. As a result, operational noise impacts would result in disproportionately high and adverse effects on low-income populations under all alternatives before consideration of project benefits.

Vibration

Operation of the project would also generate excessive ground-borne vibration impacts at sensitive receptors in the San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections. Before direct mitigation, Alternative 1 would result in 81 vibration impacts, Alternative 2 would result in 143 vibration impacts, Alternative 3 would result in 140 vibration impacts, and Alternative 4 would result in 1,203 vibration impacts. The majority of these vibration impacts would occur within the Monterey Corridor Subsection, with the remaining vibration impacts occurring in the San Jose Diridon Station Approach and Morgan Hill and Gilroy Subsections. Along the proposed alignment, there are many residences between Santa Clara and Gilroy where existing vibration levels exceed the residential criterion of 72 vibration decibels due to Caltrain operations. Because the project alternatives would more than double the number of train passby events per day, additional vibration impacts would occur.

Although Alternative 1 would have vibration impacts, but they would not disproportionately occur in low-income or minority areas. Before direct mitigation, there would be disproportionately high and adverse vibration effects on low-income populations for Alternatives 2, 3, and 4 because the impacts would disproportionately occur in low-income areas (Alternative 2: 56 percent; Alternative 3: 56 percent; and Alternative 4: 62 percent). With Alternative 4, of a total of 1,203 vibration impacts, an estimated 741 would occur in low-income areas. As discussed in Section 3.4, while the precise evaluation of the effectiveness of the project vibration Mitigation Measure NV-MM#8 requires detailed designs and consideration of site-specific conditions, vibration direct mitigation has the potential to reduce the vibration levels by up to 10 decibels (dB). A preliminary review of the operational vibration impacts was done to identify the impacts that are more than 10 dB and less than 10 dB above the threshold. Based on the review, there is a potential to reduce all or nearly all of the vibration impacts for Alternatives 1, 2, and 3 to below the threshold. Thus, Alternatives 1, 2, and 3 are not expected to result in a disproportionately high and adverse effect on low-income populations, with direct mitigation.



As discussed in Section 3.4, with NV-MM#8, there is the potential to reduce all but 15 of the vibration impacts for Alternative 4 below the threshold, which is a reduction from 741 vibration impacts in low-income areas to only 15 impacts in low-income areas, which is a reduction of the number of impacts in low-income areas by 98 percent. The residual 15 impacts after direct mitigation represent only 1.25 percent of the original overall adverse impacts before direct mitigation. The residual impacts will occur in Santa Clara (one location, 4 units), Gardner/Willow Glen (3 locations, 3 units), South San Jose (2 locations, 7 units), and Morgan Hill (1 location, 1 unit). Although all of these are in areas with low-income populations greater than the reference community, these impacts are dispersed over approximately 23 miles and are not concentrated in any specific neighborhood or community area. Where the other measures included in Mitigation Measure NV-MM#8 do not reduce vibration levels below the threshold level, the measure includes the purchase of vibration easements to compensate for residual vibration effects above the threshold level. Given the substantial reduction of adverse effects in low-income areas, the limited numbers of residual adverse effects after direct mitigation, and the dispersal of the impacts over a large area and not being concentrated in any specific neighborhood or community, and the acquisition of vibration easements at the residual locations where feasible direct mitigation cannot reduce vibration levels below the applicable threshold, the concerns raised by the affected communities regarding vibration are considered to be addressed and the vibration impacts of the project alternatives would not be disproportionately high and adverse. Therefore, Alternative 4 would not have a disproportionately high and adverse effect on minority populations or low-income populations related to vibration.

Consideration of Project Benefits

Implementation of the project would reduce air and vehicle travel compared to the No Project Alternative, which would reduce aircraft noise for Santa Clara and San Jose residents along the flight path from San Jose International Airport and freeway noise along I-880, I-280, SR 87, US 101, SR 85, and SR 152, which would benefit minority populations and low-income populations along the airport flight path and along those roadways. However, these project noise benefits would only partially accrue to the low-income communities disproportionately affected by severe noise impacts from the project alternatives and severe noise impacts would remain, and thus the project alternatives would still result in a disproportionately high and adverse effect on low-income populations.

Employment

The HSR project would improve connectivity while facilitating new access to employment and educational opportunities and creating job opportunities across many sectors of the economy in the three-county region. Overall, it is expected that employment growth would be a net benefit for the region as a whole. The Authority estimates operations associated with the HSR system would create approximately 1,110 jobs in the three-county reference community, an estimate that would be the same for all project alternatives. Operations-related employment would be based in San Jose and Gilroy at station locations and the MOWF near Gilroy. The Authority is committed to making sure that no person in the state of California is excluded from participation in, nor denied the benefits of, its programs, activities, and services on the basis of race, color, national origin, age, sex, or disability as afforded by Title VI of the Civil Rights Act of 1964 and related statutes. With the Authority's implementation of employment training programs consistent with the Community Benefits Agreement described previously, these jobs would provide opportunities for minority populations and low-income populations within the region.

Consideration of Project Benefits

The project would also result in local operational employment and spending, including related to the San Jose Diridon Station, the Gilroy Station, the Gilroy MOWF, and the Maintenance of Infrastructure Facility in the San Joaquin Valley. HSR stations would improve access to goods and services for those living or working near San Jose and Gilroy and provide opportunities for increased jobs. The Authority and station cities are working together to develop and implement local land use plans to promote growth in close proximity to HSR stations.



This employment and direct spending would provide local economic benefits along the project corridor, including in and near San Jose, Morgan Hill, Gilroy, and the San Joaquin Valley, but since there are no disproportionately high and adverse effects related to employment during operations, there are no effects to offset.

Air Quality

Operation of the project would not result in regional increases in mobile source air toxics (MSAT) or criteria pollutants. In fact, operation of the project as part of the statewide HSR system would result in an overall benefit to air quality. This benefit would result from a shift in modes of travel from vehicles and aircrafts to HSR, which has fewer emissions relative to existing modes of transportation. The emissions reductions would be equal for all four project alternatives. There would be a benefit of reduction of greenhouse gas emissions as well, and the project alternatives would result in a net reduction of greenhouse gas emissions statewide. Long-term air quality improvements would be experienced equally by minority populations and low-income populations and the general population within the region.

While reductions in regional emissions are expected because of decreased VMT, localized increases in MSATs, diesel particulate matter (DPM), carbon monoxide (CO), and particulate matter (PM) could occur near the stations and maintenance facilities because of additional passenger and employee commute trips. These localized increases in air emissions would occur in locations where minority populations and low-income populations reside within the station and maintenance facility RSAs. The project alternatives would reposition existing tracks used by UPRR freight trains. Redistributing or moving existing freight traffic would result in increased DPM concentrations at certain receptor locations and in corresponding decreases at other locations.

The additional station traffic would not be considered to have "higher potential MSAT effects" per the Federal Highway Administration (FHWA) guidance since the anticipated change in local average daily traffic would not exceed the FHWA's MSAT trigger of 140,000 average daily traffic. Similarly, the project would not result in CO or PM concentrations in excess of the NAAQS or CAAQS (see Table 3.3-24 and Impact AQ#13 in Section 3.3, Air Quality and Greenhouse Gases, of this Final EIR/EIS). Similarly, as shown in Tables 3.3-25 and 3.3-26 in Section 3.3, health risks and PM_{2.5} concentrations at the maximally exposed receptor locations near the relocated freight service, stations, and maintenance facilities would be less than BAAQMD's health risk thresholds of significance.

Consideration of Project Benefits

As discussed above, implementation of the project would result in substantial reductions in regional criteria pollutants and greenhouse gases due to the diversion of on-road passenger vehicle traffic to a train mode of travel using an electric train that would run on renewable electricity, which would benefit regional populations in general and minority populations and low-income populations that often experience higher air pollution burdens at present. These benefits would accrue both to local and regional minority populations and low-income populations and the general population. Because the project would not result in disproportionately high and adverse effects related to operational air quality, there are no high and adverse effects to offset.

5.6.3.3 Cumulative Impacts

NEPA requires examination of a project's cumulative effects (i.e., a project's effects considered in conjunction with the effects of other past, present, and reasonably foreseeable projects causing related effects). Section 3.19 of this Final EIR/EIS discusses the project alternatives' contribution to any cumulative effect for each resource area discussed in Chapter 3. The following discussion provides additional information on the potential for cumulative effects that could affect minority populations and low-income populations.

Under the cumulative condition, ongoing urban development is expected to continue within the cumulative RSA. Such planned projects that are anticipated to be constructed by 2040 include residential, commercial, industrial, recreational, and transportation projects. These projects would occur throughout the cumulative RSA, which is the same as the environmental justice RSA and



includes census tracks within 0.5 mile of the project footprint. This area includes portions of Santa Clara, San Jose, Morgan Hill, San Martin, Gilroy, Santa Nella, Volta, and Los Banos, as well as the unincorporated areas of Santa Clara, San Benito, and Merced Counties. The cumulative RSA has a population of approximately 63.8 percent minority and 30 percent low-income.

Past development in the cumulative RSA has affected the communities within the RSA. The Authority acknowledges that the environmental justice communities in Santa Clara/North San Joss, San Jose Diridon area, Gardner/Willow Glen, Washington/Guadalupe/Tamien/Alma/ Almaden area in San Jose, South San Jose, Morgan Hill, and Gilroy have historically experienced adverse effects from a variety of transportation projects, including passenger and freight rail corridors, freeways, highways, and interstates that have bisected communities and effects from the Norman Y. Mineta San Jose International Airport. In recent decades, the Bay Area has experienced record employment levels and population growth due to expansion of the technology sector. This strong economic growth has placed extreme pressure on the region's housing and transportation infrastructure. Limited residential development especially near job centers has resulted in rising housing costs, insufficient housing supply to meet current and future needs, and a spatial mismatch between the location of jobs and housing. This has resulted in increased distances between jobs and housing and transit, as residents unable to afford to live near transit and job centers commute farther from less urbanized areas. This has also resulted in increased urban sprawl and development, resulting in the conversion of natural and agricultural land, particularly in southern Santa Clara County. Recent development trends are anticipated to continue in the cumulative RSA. Together, the project alternatives, planned development, and cumulative conditions discussed under the general plans of Santa Clara, San Jose, Morgan Hill, San Martin, Gilroy, Santa Nella, Volta, and Los Banos, as well as the unincorporated areas of Santa Clara, San Benito, and Merced Counties, adjacent HSR sections and relevant additional future development and transportation projects identified in Appendix 3.19-A and Appendix 3.19-B of Volume 2 constitute the cumulative condition relevant to environmental justice.

Areas with the highest percentage of low-income populations within the cumulative RSA include Santa Clara, San Jose, Gilroy, and unincorporated Santa Clara County. Planned nontransportation projects within these areas include development of residential areas, mixed use areas that include residential, commercial and retail space, and parks, open spaces, and recreation resources, and construction of hotels. Transportation projects in these areas include multiple road widening and realignment projects, intersection improvements, including the construction of a new intersection on US 101 in San Jose, roadway extensions, and roadway reconfigurations, such as the SR 152/Frazier Lake Road Intersection. In Morgan Hill, multiple affordable housing complexes would be developed. Areas with the highest percent of minority populations within the cumulative RSA include southern San Jose, Gilroy, and Los Banos. Planned projects within these areas include nontransportation projects, such as the development of residential areas and mixed-use areas that would contain residential and commercial space, and construction of a hotel, and transportation projects, including the reconfiguration of the SR 152/Frazier Lake Road Intersection roadway and construction of the SR 152 Los Banos Bypass. In Gilroy, multiple affordable housing complexes would be developed.

Construction of planned projects in the cumulative RSA could result in temporary and permanent disruptions to minority populations and low-income populations during construction. For instance, the Communications Hill Specific Plan provides for development of 2,200 residential units, up to 67,500 square feet of commercial/retail uses, 55 acres of industrial park uses, public parks, open space, trails, streets, stormwater facilities, and associated infrastructure on approximately 332 acres within the Communications Hill Specific Plan Area in an area bounded by Monterey Road in southern San Jose. Google's Downtown West project would result in substantial construction of residential and commercial development adjacent to the San Jose Diridon Station. If constructed concurrently with the project, the incremental effects of multiple projects, such as the Downtown West project, could combine to create disproportionately high and adverse effects on minority populations and low-income populations in specific communities (see discussion in Section 3.19, Cumulative Impacts), which would be considered a cumulative effect under NEPA. However, nontransportation and transportation projects as a whole are distributed throughout the



cumulative RSA and extend beyond the neighborhoods where there are high percentages of minority populations and low-income populations. In addition, a number of these projects would create additional, permanent jobs in the area and would set aside land for future industrial and commercial development, which could increase the economic opportunities available to minority populations and low-income populations.

Development of planned projects would likely include the implementation of various forms of mitigation to avoid or minimize the potential for temporary and permanent cumulative effects on the population as a whole in the cumulative RSA. Based on the location of cumulative transportation and nontransportation projects described in Appendix 3.19-A and Appendix 3.19-B in Volume 2, cumulative projects are located throughout the project section, including in both minority and nonminority areas and in both low-income and non-low-income areas. For example, the BART extension to San Jose and the Google Downtown West project would occur in lowincome areas near San Jose Diridon Station, but the Sargent Ranch Quarry and the Pacheco Reservoir Expansion Project would not occur in areas with minority populations or low-income populations in greater percentages than the reference community. Adverse effects would be distributed throughout the region and would occur based on the construction timelines of the planned projects under the cumulative condition. Many of the planned projects occur through the broader areas of the cumulative RSA, rather than only in specific neighborhoods where the percentage of minority populations and/or low-income populations exceed the percentage of lowincome populations or minority populations in the reference community. As a result, there would not be a cumulative effect under NEPA.

Consideration of Project Benefits

The project alternatives would result in local and regional benefits to the cities and communities within the cumulative RSA. These benefits would include increased statewide accessibility to jobs, goods, and services; reduced vehicle miles traveled; long-term air quality improvements; reduction in greenhouse gas emissions; public safety benefits realized through the incorporation of new safety and signaling systems into project design; and new employment opportunities during construction and operations. Public safety benefits would be realized throughout the project section while benefits related to increased accessibility, emission reductions, long-term air quality improvements, and job creation would be realized across the three-county region.

These beneficial effects would extend to minority populations and low-income populations located within the cumulative RSA. The minority populations and low-income populations that would be affected most by project and cumulative construction and operations near the San Jose Diridon Station, along the Monterey Corridor in South San Jose, in Morgan Hill, and in Gilroy live closer to the San Jose and Gilroy stations than the average individual in the reference community. The maximum distance from minority areas or low-income areas in San Jose, Morgan Hill, and Gilroy is 13 miles to an HSR station. The project would also encourage modal shifts to utilize rail and connected transit systems, which would provide mobility benefits to minority populations and low-income populations that are disproportionately dependent on transit services. The long-term benefit of relative ease of access for intrastate travel and increased mobility due to modal shifts would accrue both locally to minority populations and low-income populations and more broadly with implementation of HSR service.

HSR stations can become a focal point of economic activity as public and private investment seeks to capture the travel benefits of increased intercity accessibility. Localized beneficial effects are anticipated in the area surrounding the San Jose Diridon and Downtown Gilroy Stations where low-income populations and minority populations are present.

5.7 Summary of Disproportionately High and Adverse Effects Prior to Consideration of Offsetting Mitigation

This section summarizes the disproportionately high and adverse impacts on environmental justice populations (i.e., minority populations and low-income populations) by resource and alternative. This summary includes the consideration of the effects of the project (i.e., project benefits) and identified direct mitigation prior to the consideration of the potential effects of



offsetting mitigation (e.g. community improvements that would help to offset disproportionately high and adverse effects). Figures showing the disproportionately high and adverse impacts under Alternative 4 (the Preferred Alternative) after consideration of direct mitigation and project benefits but before consideration of offsetting mitigation measures are included in Appendix 5-D in Volume 2.

Offsetting mitigation measures are discussed in Section 5.8. A determination of whether the project would have a disproportionately high and adverse effect on minority populations and low-income populations after consideration of offsetting mitigation measures is provided in Section 5.9, Environmental Justice Determination, in this Final EIR/EIS.

Aesthetics and Visual Quality. Construction of the project alternatives would introduce permanent structures, including viaducts and grade separations, stations, maintenance facilities, TPSS facilities, and landscape changes that would permanently remove or block residential views and distant scenic views and contrast with scale and materials of nearby residential areas. Adverse visual effects would predominantly occur in residential areas where the project alternatives are located on viaduct and could affect the perceived quality of life of residents. The embankment through Gilroy under Alternative 2 would also partially block views of the surrounding hills and the city, imparting an industrial aesthetic to the landscape, and dominating the scale of adjacent residential, commercial, and historic structures (e.g., Gilroy City Hall, Gilroy Caltrain Station). Adverse visual effects would occur in areas where the percentage of minority populations and percentage of low-income populations exceed the percentages of the reference community (63.4 percent minority and 23.3 percent low-income). As explained in Section 5.6, Assessment of Effects, on an end-to-end basis, Alternatives 1, 2, and 3 would result in disproportionately high and adverse effects on low-income populations, but none of the alternatives would result in disproportionately high and adverse effects on minority populations related to aesthetics and visual quality. Alternative 4 would not have disproportionately high and adverse effects on minority populations or low-income populations relative to aesthetics and visual quality.

Alternatives 1 and 3 have the highest length of aerial viaduct (45.4 and 43.2 miles respectively) and also the greatest proportion of aerial viaduct in low-income areas (59 percent). Alternative 2 has 20.9 miles of aerial viaduct with 50 percent of the mileage occurring in low-income areas, and 3.4 miles of embankment through low-income areas and minority areas in Gilroy. Alternative 4 has both the lowest length of aerial viaduct (15.2 miles) and the smallest proportion that occurs within low-income areas (35 percent).

During the environmental justice engagement process, community members throughout the project extent expressed concern about visually dominant project elements such as aerial structures and HSR stations resulting in the loss of residential views and reduced privacy for residents adjacent to the passing HSR trains. Mitigation measures will be applied equally in areas with high rates of minority populations and low-income populations and the reference community as a whole but will only partially address the concerns raised by community members. After the implementation of direct mitigation, adverse visual effects will remain under all project alternatives and would disproportionately occur in low-income areas under Alternatives 1, 2, and 3. Project benefits related to visual aesthetics will sometimes benefit different communities than those that would experience adverse visual effects due to project alternatives and thus would not offset those adverse effects. Because permanent adverse visual effects would disproportionately affect low-income populations in San Jose, Morgan Hill, and Gilroy (Alternatives 1, 2, and 3) in addition to the effects of the embankment section in Gilroy (Alternative 2), these effects would disproportionately affect minority populations and low-income populations under Alternatives 1, 2. and 3. Permanent adverse visual effects would not disproportionately affect minority populations or low-income populations under Alternative 4.

Residential Displacements. Construction of the project alternatives would require the acquisition of right-of-way and would result in the displacement of residences. Table 5-20shows a summary of where residential displacements would disproportionately occur by alternative, and the percent that would be located in minority areas and low-income areas within the



environmental justice RSA. As discussed in Section 5.6, before consideration of relocation assistance, direct mitigation, and relocation availability in local areas, residential displacements would have a disproportionately high and adverse effect on low-income populations for all alternatives, and Alternative 2 would have a disproportionately high and adverse effect on minority populations. Displacements were a primary concern of community members along the project alignment. Participants in Gilroy were particularly concerned about displacement of low-income rental housing, the ability of low-income and unemployed community members who rent their homes to relocate if affected by the project, and the adequacy of replacement housing to relocate those affected. The Authority would comply with federal and state laws that require that relocation assistance be provided to any person, business, farm, or nonprofit operation displaced because of the acquisition of real property by a public entity for public use. In addition, under Mitigation Measure SO-MM#1, the Authority will provide targeted outreach to residents affected by displacements and facilitate the locating of replacement housing and/or the construction of replacement housing.

With Alternatives 1, 3, and 4, there is adequate relocation availability in minority areas and low-income areas overall such that minority populations and low-income populations would not be disproportionately affected by residential displacement, with provision of relocation assistance and implementation of SO-MM#1.

Under Alternative 2, taking into account relocation availability, there would not be disproportionately high and adverse effects on minority populations. However, due to the scale of residential displacements in Morgan Hill and Gilroy under Alternative 2 and the lack of sufficient relocation availability in Morgan Hill and Gilroy to meet the relocation, there would be disproportionately high and adverse effects on low-income populations under Alternative 2 related specifically to the residential units that cannot be relocated locally in these two communities (which is estimated to be a shortfall of 59 units in Morgan Hill and 75 units in Gilroy).

Emergency Vehicle Response Times. Construction-related road relocations and reconstructions with Alternatives 1, 2, and 3 would permanently increase vehicular travel times in South San Jose along Monterey Road, causing delays in emergency vehicle response times. These delays would adversely affect the public health and welfare of residents in adjacent neighborhoods under Alternatives 1, 2, and 3, with the delay being the greatest under Alternative 2.

Under all alternatives, the addition of HSR service at the San Jose Diridon Station would generate a total of approximately 1,100 peak hour vehicle trips during operations, causing adverse impacts at multiple intersections in the general vicinity of the station. The added station traffic generated by HSR service would cause adverse impacts on fire station emergency vehicle response times resulting in increased delay of up to 30 seconds for fire station emergency response times.

Under Alternatives 1, 2, and 4, the addition of HSR service at Gilroy Station would generate a total of approximately 690 peak hour vehicle trips during operations, causing adverse impacts at multiple intersections in the general vicinity of the station. The added station traffic generated by HSR service would cause adverse impacts on fire station emergency vehicle response times resulting in increases of more than 30 seconds to fire station emergency response times.

The potential impacts of additional gate-down time on fire station emergency vehicle response times during operations were assessed throughout the corridor for Alternative 4. The analysis indicates a potential for impacts of 30 seconds or more on emergency response times to fire station response areas at 26 at-grade crossings along the project extent. Areas that would experience delays in emergency vehicle response of 30 seconds or more due to increased gate-down time include South San Jose, San Martin, and Gilroy.

Mitigation Measures SS-MM#3 and SS-MM#4 will address adverse effects on emergency vehicle response time relative to station traffic at the San Jose Diridon Station (all alternatives) and Downtown Gilroy Station (Alternatives 1, 2, and 4) and narrowing of Monterey Road (Alternatives 1, 2, and 3). With this direct mitigation, impacts on emergency vehicle response times will not



result in high and adverse effects on minority populations or low-income populations for Alternatives 1. 2. and 3.

For Alternative 4, Mitigation Measure SS-MM#4 includes specific emergency response improvements aimed to address emergency vehicle response time delays due to increased gatedown time at at-grade crossings, but some of the improvements, such as new fire stations, would require local jurisdictions to construct and operate them with the funding provided by the Authority. If the necessary improvements are constructed and operated, then Alternative 4 would not have adverse effects related to emergency vehicle response times, and there would be no disproportionately high and adverse effects related to emergency vehicle response times for Alternative 4.

If the necessary improvements in SS-MM#4 are not constructed and operated and Alternative 4 still would result in delays of greater than 30 seconds, then the Authority would also implement site-specific traffic delay/congestion direct mitigation measures in areas where project congestion/delay effects at adjacent or nearby intersections would affect emergency vehicle response times (TR-MM#1e, TR-MM#1t, TR-MM#1u, TR-MM#1w, TR-MM#1x.6, TR-MM#1x.8, TR-MM#1.9, and TR-MM#1tx.10). These site-specific traffic delay/congestion direct mitigation measures will help to reduce delays at intersections adjacent and near at-grade crossings but will not eliminate delays at the at-grade crossings themselves. Therefore, in this instance, there would still be a disproportionately high and adverse effect related to emergency vehicle response times for Alternative 4 on low-income populations (61 percent of the affected areas would be in low-income areas) but not on minority populations (only 46 percent of the affected areas would be in minority areas).

Implementation of the project would provide a safer mode of intrastate travel than personal vehicles for minority populations and low-income populations between San Jose and Gilroy who would have ready access to HSR stations which would improve safety for longer trips utilizing the HSR service compared to the No Project Alternative. The project would also encourage modal shifts to utilize rail and connected transit systems, which are safer modes of travel than personal vehicles and would result in increased safety for trips displaced from personal vehicles to transit. Alternative 4 would also provide for improvements to Caltrain/UPRR corridor rail safety through installation of fencing, quad gates, and channelization which would help to improve safety conditions relative to the existing railroad corridor through minority populations and low-income populations.

Given the importance of emergency vehicle response times to community health and safety, the project safety benefits are not considered sufficient to offset the disproportionately high and adverse effects of Alternative 4 on low-income populations in South San Jose and Gilroy related to delays in emergency vehicle response times (see mapping of specific locations in Appendix 5-D in Volume 2), in the event that local jurisdictions do not choose to implement emergency vehicle response improvements included in Mitigation Measure SS-MM#4 funded or otherwise supported by the Authority.

South Valley Middle School Field/Track. Under Alternative 2, permanent acquisition at the South Valley Middle School would preclude the use of the resource or result in diminished capacity for use, because acquisition of approximately 12 percent of the total play area would constitute a substantial reduction in the total play area available for use and the track would no longer be functional under this alternative. Since the South Valley Middle School is in a minority area and low-income area, the diminishment of play function would be a disproportionately high and adverse effect. There are no project benefits that would offset this loss.

Noise. With the application of direct mitigation with noise barriers, ²³ Alternative 4 will have residual severe noise impacts on the greatest number of sensitive receptors, followed by Alternative 1, Alternative 2, and Alternative 3, respectively. The DDV and TDV would increase the

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²³ Implementation of Quiet Zones, while supported by direct mitigation measures proposed by the Authority, can only be done at the initiative of local jurisdictions.



number of severe noise impacts slightly for Alternative 4 compared to the design without the design variants. On an end-to-end basis, the share of impacts in minority areas ranges from 10 percent (Alternative 1) to 46 percent (Alternative 4). The share of impacts in low-income areas ranges from 28 percent (Alternative 1) to 66 percent (Alternative 4). None of the alternatives would have a disproportionately high and adverse effect on minority populations, but all alternatives would have a disproportionately high and adverse effect on low-income populations due to severe noise impacts.

Mitigation with noise barriers will not avoid all severe noise impacts. While sound insulation will help to provide acceptable indoor noise levels at nearly all receptor buildings where severe outdoor noise impacts occur after installation of feasible and locally accepted noise barriers, outdoor severe noise impacts will still occur. Under Mitigation Measure NV-MM#3, the purchase of noise easements will also be considered to address residual severe noise impacts. And Mitigation Measure EJ-MM#1 will require additional evaluation regarding noise in environmental justice communities. However, since residual severe noise effects could still remain at some locations, direct mitigation may not avoid all severe noise impacts.

Implementation of the project would reduce air and vehicle travel compared to the No Project Alternative, which would reduce aircraft noise for Santa Clara and San Jose residents along the flight path from San Jose International Airport and freeway noise along I-880, I-280, SR 87, US 101, SR 85, and SR 152, which would benefit minority populations and low-income populations along the airport flight path and along those roadways. However, these project noise benefits would only partially accrue to the low-income communities disproportionately affected by severe noise impacts from the project alternatives, and severe noise impacts would remain, and thus the project alternatives would still result in a disproportionately high and adverse effect on low-income populations.

Consequently, operational noise impacts would result in disproportionately high and adverse effects on low-income populations under all alternatives to certain sensitive noise receptors in the following low-income areas along the project alignments: Santa Clara (Alternative 1); north San Jose (Alternatives 1 and 4); the San Jose Diridon area (Alternatives 1 and 4); the Gardner/Willow Glen area in San Jose (Alternative 4); the Washington, Guadalupe, Tamien, Alma, Almaden area in San Jose (Alternative 4); South San Jose (Alternatives 2 and 4); Morgan Hill (Alternative 4); Gilroy (Alternatives 1, 2, and 4); and San Joaquin Valley (all alternatives). The specific locations of these impacts for Alternative 4 are shown in Appendix 5-D in Volume 2.



Table 5-26 Determination of Disproportionately High and Adverse Effects on Minority Populations and Low-Income Populations with Direct Mitigation Only and With Direct Mitigation and Project Benefits

		Construction Doc				Desidential	Destinant	Foregon Waliala			
Alternative	Condition	Construction Bus Transit Delay	Construction Traffic	Operational Traffic	Visual Aesthetics	Residential Displacement	Business Displacement	Emergency Vehicle Response	Park Areas	Noise	Vibration
Alt. 1	DHAEs with Direct Mitigation	DHAE for minority populations and low-income populations: Reduced but still adverse delays due to temporary road closures to bus transit serving minority populations and low-income populations.	DHAE for minority populations and low- income populations: Reduced but still adverse delays along Monterey Road in South San Jose.	DHAE for minority populations and low-income populations: Overall 23 intersections near San Jose Diridon Station (11) and in South San Jose (12); 61% in minority areas and 100% in low-income areas.	DHAE for low- income populations: Adverse effects due to aerial viaduct in Santa Clara, San Jose, Morgan Hill, Gilroy, and San Joaquin Valley.	Not DHAE: Adequate local relocation availability for displaced residents in minority areas and low-income areas.	DHAE for low-income populations: Inadequate relocation availability in Gilroy (60 units).	Not DHAE	Not DHAE	DHAE for low-income populations: residual severe impacts in low-income areas in these areas: Santa Clara/North San Jose (3); Gilroy (7); and San Joaquin Valley (101); Overall, 28% of residual severe noise impacts in low-income areas.	Not DHAE
	DHAEs with Direct Mitigation and Project Benefits	Not DHAE	Not DHAE	Not DHAE	DHAE	Not DHAE	Not DHAE	Not DHAE	Not DHAE	DHAE	Not DHAE
Alt. 2	DHAEs with Direct Mitigation	DHAE for minority populations and low-income populations: Reduced but still adverse delays due to temporary road closures to bus transit serving minority populations and low-income populations.	DHAE for minority populations and low- income populations: Reduced but still adverse delays along Monterey Road in South San Jose.	DHAE for minority populations and low-income populations: 24 intersections near San Jose Diridon Station (11), in South San Jose (11), and in Gilroy (2); overall 54% in minority areas, 100% in low-income areas.	DHAE for low- income populations: Adverse effects due to aerial viaduct and/or elevated embankment in Santa Clara, San Jose, Morgan Hill, Gilroy, and San Joaquin Valley.	DHAE for low-income populations: Inadequate relocation availability in Morgan Hill (59 units) and Gilroy (75 units).	DHAE for low-income populations: Inadequate relocation availability in Morgan Hill (10 units) and Gilroy (92 units).	Not DHAE	DHAE for minority populations and low-income populations: Loss of portion of South Valley Middle School field/track in Gilroy.	DHAE for low-income populations: residual severe impacts in low-income areas in these areas: South San Jose (7); Gilroy (10); and San Joaquin Valley (101). Overall, 35% of residual severe noise impacts in low-income areas.	Not DHAE
	DHAEs with Direct Mitigation and Project Benefits	Not DHAE	Not DHAE	Not DHAE	DHAE	DHAE	Not DHAE	Not DHAE	DHAE	DHAE	Not DHAE
Alt. 3	DHAEs with Direct Mitigation	DHAE for minority populations and low-income populations: Reduced but still adverse delays due to temporary road closures to bus transit serving minority populations and low-income populations.	DHAE for minority populations and low- income populations: Reduced but still adverse delays along Monterey Road in South San Jose.	DHAE for minority populations and low-income populations: 23 intersections near San Jose Diridon Station (11) and South San Jose (12); 61% in minority areas, 100% in low-income areas.	DHAE for low- income populations: Adverse effects due to aerial viaduct in Santa Clara, San Jose, Morgan Hill, Gilroy, and San Joaquin Valley.	Not DHAE: Adequate local relocation availability for displaced residents in minority areas and low-income areas.	Not DHAE: Adequate local relocation availability for displaced business in minority areas and low-income areas.	Not DHAE	Not DHAE	DHAE for low-income populations: residual severe impacts in low-income areas in these areas: San Joaquin Valley (101). Overall, 43% of residual severe noise impacts in low-income areas.	Not DHAE
	DHAEs with Mitigation and Project Benefits	Not DHAE	Not DHAE	Not DHAE	DHAE	Not DHAE	Not DHAE	Not DHAE	Not DHAE	DHAE	Not DHAE

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Alternative	Condition	Construction Bus Transit Delay	Construction Traffic	Operational Traffic	Visual Aesthetics	Residential Displacement	Business Displacement	Emergency Vehicle Response	Park Areas	Noise	Vibration
Alt. 4	DHAEs with Direct Mitigation	Not DHAE: Adverse delays due to bus transit serving minority populations and lowincome populations avoided with direct mitigation.	Not DHAE	DHAE for low-income populations: Overall 19 intersections in low-income areas near San Jose Diridon Station (8), in South San Jose (5), Morgan Hill (1), and Gilroy (5), 86% of overall impacts in low-income areas.	Not DHAE	Not DHAE: Adequate local relocation availability for displaced residents in minority areas and low-income areas.	DHAE for low-income populations: Inadequate relocation availability for industrial business displacement in Gilroy (4 units).	DHAE for low-income populations in South San Jose and Gilroy: Delays > 30 seconds due to increased gate-down time at atgrade crossings in South San Jose and Gilroy. 61% of overall impact in low-income areas.	Not DHAE	DHAE for low-income populations: Residual severe impacts in low-income areas in these areas: Santa Clara/North San Jose (1), San Jose Diridon (5), Gardner/Willow Glen (6); Washington, Guadalupe, Tamien, Alma, Almaden (13), South San Jose (16), Morgan Hill (33), Gilroy (48), and San Joaquin Valley (101). Overall, 66% of residual severe noise impacts in low-income areas.	Not DHAE
	DHAEs with Mitigation and Project Benefits	Not DHAE	Not DHAE	Not DHAE	Not DHAE	Not DHAE	Not DHAE	DHAE	Not DHAE	DHAE	Not DHAE

Alt = alternative; DHAE = disproportionately high and adverse effect

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San Jose to Merced Project Section Final EIR/EIS



5.8 Offsetting Mitigation Measures

Direct mitigation discussed above in Section 5.6 and in Chapter 3 of this document addresses the specific receptor of a project effect. Offsetting mitigation measures, on the other hand, are focused on improving community conditions for minority communities and low-income communities adjacent to the project alignments that are affected by the project.

As identified in Section 5.7, the different project alternatives would result in certain disproportionately high and adverse effects on certain minority populations and/or low-income populations along the project extent after considering adverse effects, feasible direct project mitigation, project benefits, and the input provided by environmental justice communities and stakeholders. Because there would be some residual disproportionately high and adverse effects after consideration of the totality of the circumstances, the Authority evaluated a range of community improvements as candidate offsetting mitigation measure because with the potential to offset adverse effects in minority communities and low-income communities.

The Authority developed a wide range of potential community improvements through engagement with the affected jurisdictions, community organizations active in the affected communities, and potential implementing partners (including both public agencies and nongovernmental organizations). Potential community improvements that could qualify as offsetting mitigation measures include upgrades to existing community facilities, structures, functions, and actions or the addition of facilities, structures, functions, or actions made for the benefit of a local community. Offsetting mitigation measures do not include elements of the proposed project; direct mitigation measures in the EIR/EIS; improvements required by local, state, or federal mandates; or improvements fully funded by dedicated existing sources of funding.

5.8.1 Development and Evaluation of Potential Community Improvements

The evaluation of potential community improvements included the following process aimed at identifying community improvements that could help to offset residual disproportionately high and adverse effects (further description is provided in Section 5.5 and in Volume II, Appendix 5-B and Appendix 5-C):

- Development of the planning process, including evaluation criteria (see discussion below) in November 2019.
- Initial outreach (Community Improvements Outreach Phase One) focused on identifying needs and community improvement concepts from December 2019 through January 2020.
- Development and evaluation of potential improvements from February through June 2020, including development of community improvement profiles containing a description of each improvement, location, disproportionately high and adverse effects potentially addressed by the improvement, consistency with local planning and policy, preliminary cost estimates, summary of relevant input from communities and local agencies, evaluation against the evaluation criteria, and a figure showing the improvement location.
- Additional outreach to potential implementing partners (Community Improvements Outreach Phase Two) in July through August 2020.
- Further refinement of analysis and definition of proposed improvements and development of updated profiles and evaluation scoring from August 2020 through November 2020.
- Determination of a reasonable nexus of potential improvements to residual disproportionately high and adverse effects and identification of potential community improvements for different project alternatives from May 2021 through July 2021.
- Identification of the potential for secondary physical effects on the environment due to implementation of potential community improvements in July 2021.
- Additional outreach on revised environmental justice analysis and potential community improvements in September 2021.



Final recommendation of community improvements in the Final EIR/EIS

This process is described in greater detail in Volume 2, Appendix 5-C.

5.8.2 Community Improvements Engagement

The community engagement associated with development of potential community improvements is summarized in Section 5.5 and discussed further in Volume 2, Appendix 5-B and Appendix 5-C.

5.8.2.1 Evaluation Criteria

The Authority developed evaluation criteria in order to identify the most promising community improvements for potential implementation. These criteria were shared during Community Improvements Outreach Phase One at the outset of the community improvements development process and refined during the evaluation of improvements based on the community feedback received. Evaluations applying these criteria were shared with potential implementing partners during Community Improvements Outreach Phase Two.

- Benefit Intensity—Improvements must benefit minority populations or low-income
 populations within communities in a census district defined as containing low-income
 populations or minority populations greater than the reference community that would
 experience disproportionately high and adverse effects due to the project. Improvements
 should improve community cohesion, identity, livability, economic or educational
 opportunities, health, and/or safety.
- **Relative Number of Beneficiaries**—The relative number of beneficiaries of an improvement will be evaluated compared to the other improvements within a specific community.
- Practicable—The improvements must be practicable, which is defined as feasible
 considering technical feasibility, logistical feasibility and implementation, and financial
 feasibility.
- Defined Project or Action—The nature and scope of improvement investment is defined clearly and distinctly in terms of the specific physical improvements (if relevant), beneficial outcomes, implementing mechanisms, costs, and timing.
- Satisfy Authority Obligations—The Authority can determine that the improvements have a
 general relationship to overall project effects, are consistent with the Authority's mission, and
 are consistent with a statewide objective or program, without setting an undesirable
 precedent or creating hardship.
- Defined Roles and Responsibilities—This criterion is defined by the degree to which the
 ownership, implementation, and operation and maintenance roles and responsibilities for
 improvements are clearly defined and acceptable to assigned entities.
- Evidence of Agreement—There should be evidence that the Authority, the local community, and any local responsible agencies involved agree that the improvement would be beneficial and acceptable to the community.
- Cost-Effectiveness—The cost-effectiveness of the different improvements was evaluated by
 dividing the cost of the improvement by the number of potential beneficiaries. The costeffectiveness of the individual improvements was then compared to the cost-effectiveness of
 the other improvements in the community, and the more cost-effective improvements were
 given a higher score.

While the criteria above were used to evaluate the individual improvements, an additional criterion of improvements being *proportionate* was used to ensure that improvements would be roughly proportionate to the level of residual disproportionately high and adverse effects on minority populations or low-income populations.



The criteria used to evaluate the potential improvements and the resultant evaluation results for the potential improvements are described in greater detail in Volume 2, Appendix 5-C.

5.8.2.2 Considering a Reasonable Nexus to Residual Disproportionately High and Adverse Effects

To be considered for Authority implementation as offsetting mitigation measures, potential community improvements were required to have a reasonable nexus, or relationship to project effects. A community improvement has a "reasonable nexus" if it may reasonably offset a specific identified disproportionately high and adverse effect on the community, such as but not limited to community cohesion, visual, aesthetics, or noise. Community improvements can be shown to qualify as offsetting mitigation through an analysis that shows an improvement in community conditions for the same resource topic area as the identified project disproportionately high and adverse effects (for example noise reduction in the community to offset project noise impacts). A community improvement would also have a "reasonable nexus" where the impacted community accepts the benefit of the improvement as an offset for disproportionately high and adverse effects. A community improvement would also have a "reasonable nexus" if it would provide a reduction in adverse effects the community has experienced as a result of prior transportation projects (such as freeways, railways, or airports).

After completing the scoring evaluation²⁴ using the criteria noted above, the Authority then evaluated the list of potential community improvements to identify those that have a reasonable nexus to residual disproportionately high and adverse effects for the different project alternatives. Community improvements that would reduce the same type of community impact as a residual disproportionately high and adverse effect and would be located in the same community as a residual disproportionately high and adverse effect were identified as having a reduction in the overall level of such effects in the affected environmental justice community and thus qualify as potential community improvements for implementation. For example, in certain communities, noise improvements to address existing sources of noise (such as existing freeways) would help to reduce the overall noise impacts in that same community but may not benefit the exact same people as those directly affected by project noise; in this circumstance, community noise reduction would have a reasonable nexus. In addition, where input from the September 2021 engagement process indicates community agreement that specific practicable community improvements would help to offset disproportionately high and adverse effects, this was also considered by the Authority to establish a reasonable nexus.

Where practicable community improvements would not address the same general impact area as the project or would benefit communities elsewhere than where project impacts would occur, these improvements were not considered to have a reasonable nexus to residual disproportionately high and adverse effects. The community improvements identified with a reasonable nexus to residual disproportionately high and adverse effects and those determined to lack a reasonable nexus are described in Volume II, Appendix 5-C, Environmental Justice Development of Community Improvements as Offsetting Mitigation..

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California High-Speed Rail Authority

²⁴ The scoring evaluation used the evaluation criteria in Section 5.8.2.1 with each criterion weighted with 15 points for a total possible score of 120 points. The evaluation if explained in more detail in Appendix 5-C, Environmental Justice Development of Community Improvements as Offsetting Mitigation.



5.8.3 Proposed Offsetting Mitigation Measures

5.8.3.1 Description of Offsetting Mitigation Measures

As described above, the Authority evaluated potential community improvements taking into consideration the views of individuals, agencies, and organizations from the affected environmental justice communities where potential disproportionately high and adverse effects from the project alternatives have been identified. Those community improvements determined to have a "reasonable nexus" to the project's effects are proposed as offsetting mitigation measures to address residual disproportionately high and adverse effects (after consideration of direct mitigation and project benefits).

The proposed offsetting mitigation measures listed in Table 5-27 will offset residual disproportionately high and adverse effects on minority populations and low-income populations due to their reasonable nexus to project effects and ability to provide substantial benefits to minority populations and low-income populations within the communities where these effects would occur. These measures were chosen from the larger list of approximately 100 potential improvements (see discussion in Volume 2, Appendix 5-C of other community improvements considered that are not currently under consideration because they did not meet the criteria presented above). Reference in Table 5-27 to the Authority funding an offsetting mitigation measure is contingent on the California High Speed Rail Authority Board approval and availability of funds for construction.

Profiles for each of the potential offsetting mitigation measures are included in Volume 2, Appendix 5-C and contain a description of each measure, location, disproportionately high and adverse effects addressed by the measure, consistency with local planning and policy, preliminary cost estimates, summary of relevant input from communities and local agencies, evaluation against the evaluation criteria, determination of reasonable nexus to residual disproportionately high and adverse effects, and a figure showing the measure location. The following section in this chapter analyzes the secondary environmental effects of the proposed offsetting mitigation measures.



Table 5-27 Summary of Proposed Offsetting Mitigation Measures

Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
SC/NSJ-OMM#1	Southern Santa Clara/Northern San Jose	Noise Treatments for Up to 3 Residential Buildings Immediately Adjacent to the West Side of the Caltrain Corridor (between the Santa Clara Caltrain Station and I-880)	Authority will fund and implement in coordination with City of Santa Clara.	Measure offsets noise DHAE in Southern Santa Clara/Northern San Jose.	4
SC/NSJ-OMM#2	Southern Santa Clara/Northern San Jose	El Camino Real and Benton Street Safety Improvements	Authority will fund. City of Santa Clara would implement.	Measure agreed to by community as helping to offset project effects	1, 2, 3, 4
SC/NSJ-OMM#3	Southern Santa Clara/Northern San Jose	Streetscape Improvements	Authority will fund. City of Santa Clara would implement.	Investment in community aesthetics partially offsets visual aesthetics DHAE in San Jose Diridon area (Alternatives 2, 3).	2, 3
SJD-OMM#1	San Jose Diridon	Streetscape Improvements to Delmas Neighborhood	Authority will fund. City of San Jose would implement.	Investment in community aesthetics partially offsets visual aesthetics DHAE in San Jose Diridon area.	1, 2, 3
SJD-OMM#2	San Jose Diridon	Noise Treatments for Certain Residential Buildings Adjacent to the West Side of SR 87 (between San Fernando St. and Auzerais Ave.)/Adjacent to the North Side of I- 280 (between Delmas Ave and Los Gatos Creek) to Address Existing Noise	Authority will fund and implement in coordination with City of San Jose.	Measure offsets noise DHAE in San Jose Diridon area.	4
SJD-OMM#3	San Jose Diridon	Reestablish Inez Jackson Library at the African American Community Service Association (AACSA) community center and center amenities.	Authority will fund. AACSA would implement.	Measure provides quiet space as a refuge from project and existing noise in San Jose Diridon area, access to civil rights historical documents, and improved community gathering space.	1, 2, 3, 4



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
GWG-OMM#1	Gardner/Willow Glen	Gardner Elementary School Noise Treatments (if VTA I-280 Soundwalls Project is not advanced) ²⁵	Authority will fund. San Jose Unified School District would implement.	Measure offsets noise DHAE in Gardner/Willow Glen area.	4
GWG-OMM#2	Gardner/Willow Glen	Noise Treatments for Certain Residential Buildings Adjacent to the West Side of SR 87 (between W. Virginia St. and Brown St.)/Adjacent to the South Side of I-280 (between Spencer Ave. and Los Gatos Creek) to Address Existing Noise ²⁶	Authority will fund and implement in coordination with City of San Jose.	Measure offsets noise DHAE in Gardner/Willow Glen area.	4
GWG-OMM#3	Gardner/Willow Glen	Fuller Park/Fuller Avenue Recreational Improvements	Authority will fund. City of San Jose would implement	Measure supported by community and City of San Jose. Provided for general community welfare (no park DHAE identified in community).	4

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²⁵ Santa Clara VTA's I-280 Soundwalls Project is currently proposing to construct soundwalls on I-280 between State Route 87 and Los Gatos Creek including adjacent to the I-280 southbound lanes adjacent to the Gardner Elementary School. This project is scheduled to go through environmental clearance from 2020 to 2022, design and engineering in 2022 and 2023, and construction between 2023 and 2024. If the I-280 Soundwalls Project is advanced, then GWG-OMM#1 would be redundant with the soundwall project, provided a soundwall is placed adjacent to the southbound I-280 lanes such that is reduced traffic noise for the Gardner Elementary School. In that instance, GWG-OMM#1 allows for the funds for noise treatments at the school to instead be provided to VTA to support the I-280 Soundwalls Project, provided the soundwalls installed would benefit the Gardner Elementary School. If the project section is funded after construction of the I-280 Soundwalls Project, then the Authority would not be able to fund the VTA I-280 Soundwalls Project and this improvement would be moot. If no funding is provided to the VTA I-280 Soundwalls Project by the Authority and the soundwalls project is completed and there still remain traffic noise effects to the Gardner Elementary School, then the Authority could provide funding for school building treatments as needed to address that residual noise.

²⁶ As noted above, the VTA I-280 Soundwalls Project may happen before the HSR project is funded, which may reduce the need for noise treatments for residences on the south side of I-280 and thus the amount of houses treated may be less than would occur without the VTA I-280 Soundwalls project.



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
WGTA-OMM#1	Washington/Guadalupe/ Tamien/Alma	Community Art in Community/Local Murals on Publicly Accessible Project Structures (such as viaduct footings)	Authority will make a funding contribution. Authority will work with local community artists, organizations and the City of San Jose to identify the means to implement this measure. Community artists and/or community-based organizations would implement.	Measure partially offsets visual aesthetics DHAE in Washington, Guadalupe, Tamien, Alma, Almaden.	1, 2, 3
WGTA-OMM#2	Washington/Guadalupe/ Tamien/Alma	Streetscape Improvements (Goodyear, Humboldt, Floyd)	Authority will fund. City of San Jose would implement.	Measure partially offsets visual aesthetics DHAE in Washington, Guadalupe, Tamien, Alma.	1, 2, 3
WGTA-OMM#3	Washington/Guadalupe/ Tamien/Alma	Noise Treatments for Certain Residential Buildings Adjacent to the East Side of SR 87 (between Virginia St. and Shadowgraph Drive) to Address Existing Noise	Authority will fund and implement in coordination with City of San Jose.	Measure offsets noise DHAE in Washington, Guadalupe, Tamien, Alma.	4
WGTA-OMM#4	Washington/Guadalupe/ Tamien/Alma	Rocketship Mateo Sheedy Elementary School Public Address System Upgrade	Authority will fund. Rocketship would implement.	Measure offsets noise DHAE in Washington, Guadalupe, Tamien, Alma (Alternative 4).	4
WGTA-OMM#5	Washington/Guadalupe/ Tamien/Alma	Tamien Park Sports Field Netting	Authority will fund. City of San Jose would implement.	Measure enhances safety for community park adjacent to right-of-way.	4
SSJ-OMM#1	South San Jose	Landscaping Improvement Elements of Monterey Highway Grand Blvd.	Authority will fund. City of San Jose would implement.	Measure partially offsets visual aesthetics DHAE in South San Jose.	1, 2, 3
SSJ-OMM#2a	South San Jose	Monterey Road Pedestrian/Bike Overpass at Skyway	Authority will fund. City of San Jose would implement.	By providing a pedestrian/bicycle overpass, these measures will reduce the potential for pedestrian	4



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
SSJ-OMM#2b	South San Jose	Monterey Road Pedestrian/Bike Overpass at Branham	Authority will fund. City of San Jose would implement.	and bicycle accidents along Monterey Road and the railroad corridor, which will reduce the potential need for emergency	4
SSJ-OMM#2c	South San Jose	Monterey Road Pedestrian/Bike Overpass at Chynoweth	Authority will fund. City of San Jose would implement.	vehicle response. The safety improvements of these measures help to offset the emergency vehicle response time DHAE related to the increased gate-down time at Skyway, Branham, and Chynoweth (in the event the City of San Jose does not implement the necessary improvements in SS-MM#4 funded by the Authority; see discussion in text).	4
SSJ-OMM#3	South San Jose	Noise Treatments for Up to 20 Residential Buildings Along the West Side of US 101 (between Blossom Hill Ave. and SR 85) to Address Existing Noise	Authority will fund and implement in coordination with City of San Jose.	Measure offsets noise DHAE in South San Jose.	2, 4
SSJ-OMM#4	South San Jose	Caroline Davis Intermediate School All-Weather Turf and Track	Authority will fund. Oak Grove Unified School District would implement.	Community supported measure provides amenity for students, parents, and general community to offset general effects of project alternatives.	1, 2, 3, 4
MH-OMM#1	Morgan Hill	Park/Trail Under Viaduct	Authority will fund. City of Morgan Hill would implement. City of Morgan Hill and Authority would coordinate during design to ensure needs of City and the Authority are met.	Measure helps to improve local neighborhood aesthetics and sense of place in areas with the viaduct.	1, 3



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
MH-OMM#2	Morgan Hill	Railroad Avenue Complete Streets	Authority will fund. City of Morgan Hill would implement.	Complete Streets includes landscaping, which will partially offset visual aesthetics DHAE in Morgan Hill.	2
MH-OMM#3	Morgan Hill	Noise Treatments for Residential Buildings Along West Side of US 101 approximately 0.35 Mile North of East Main Avenue to Diana Avenue and from San Pedro Avenue to Barret Avenue (where noise barriers do not already exist) to Address Existing Noise	Authority will fund and implement in coordination with City of Morgan Hill.	Measure will offset noise DHAE in Morgan Hill.	4
MH-OMM#4	Morgan Hill	Fund 30% design of Master Plan for Caltrain Station Access and Pedestrian Undercrossing	Authority will fund design only. SCVTA, Caltrain, and/or City of Morgan Hill would implement study. Does not include capital cost funding.	Community supported study to evaluate improvements above and beyond project proposed undercrossing. If ultimately implemented, could provide community transportation connectivity and cohesion benefits.	2,4
MH-OMM#5	Morgan Hill	Fund School Bus Route Study	Authority will fund. City of Morgan Hill Unified School District would implement. Does not include funding of buses, bus operations, or infrastructure, just study.	Community supported study to evaluate ways to improve school bus transit, which can help students and schools with operations.	4
MH-OMM#6	Morgan Hill	New Park South of Butterfield	Authority will fund. City of Morgan Hill would implement.	Measure will partially offset visual aesthetics DHAE in Morgan Hill (Alternative 2).	2
MH-OMM#7	Morgan Hill	New Park North of El Toro Fire Station	Authority will fund. City of Morgan Hill would implement.	Measure will partially offset visual aesthetics DHAE in Morgan Hill (Alternative 2).	2



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
MH/G-OMM#1	Morgan Hill and Gilroy	Affordable Housing Investment	Authority will make a funding contribution. Authority will work with Santa Clara County Office of Supportive Housing to determine the initiatives and/or organizations implementing affordable housing to direct the funding to. The affordable housing organizations would implement.	Helps to offset affordable housing adverse effects due to Alternative 2 in Morgan Hill and Gilroy where there is inadequate residential relocation availability (Residential Displacements DHAE).	2
G-OMM#1	Gilroy	Sidewalk and Curb Improvement (within the Gilroy Neighborhood Revitalization Strategy Area nominally along the HSR alignment between Las Animas Ave. on the north and US 101 on the south)	Authority will fund. City of Gilroy would implement.	This series of measures in Gilroy will help to reduce the potential for accidents and injuries related to walking, biking, and moving through neighborhoods along the project corridor. The overcrossing	4
G-OMM#2	Gilroy	Bikeway Improvements (IOOF Avenue., Monterey Road, 6th Street, 4th Street, Alexander Street)	Authority will fund. City of Gilroy would implement.	at IOOF Avenue will provide a safe crossing for bikes and pedestrians at the two schools, Rebekah Children's Services, and the	4
G-OMM#3	Gilroy	Neighborhood Street Lighting (within the Gilroy Neighborhood Revitalization Strategy Area nominally along the HSR alignment between Las Animas Ave. on the north and US 101 on the south)		neighborhoods near the crossing. The bikeway measure will provide safer bicycling facilities along roads adjacent to the railroad corridor. The sidewalk and curb measure will reduce the potential	4
G-OMM#4	Gilroy	Murray Avenue Sidewalk Gap Closure Project	Authority will fund. City of Gilroy would implement.	for walking and bicycling accidents by reducing people walking or	4



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
G-OMM#5	Gilroy	IOOF Bicycle/Pedestrian Overcrossing and Complete Streets	Authority will fund. City of Gilroy would implement.	bicycling in the streets. Neighborhood lighting will enhance safety for residents. All of these measures will reduce accident and injury potential in areas adjacent to the railroad corridor, potentially reducing emergency response needs and thus help to offset potential emergency response delays with increased gate-down time (in the event the necessary safety improvements in SS-MM#4 are not implemented by the City of Gilroy with funding provided by the Authority; see discussion in text).	4
G-OMM#6	Gilroy	Noise Reduction Treatments to Certain Residences and/or Sound Walls in Gilroy Adjacent to the West Side of US 101 from South of Las Animas Avenue to Leavesley Road, from Adams Court to San Ysidro Park, and from San Ysidro Park to North of East 7th Street	Authority will fund and implement in coordination with City of Gilroy.	Measure offsets noise DHAE in Gilroy.	1, 2, 4
G-OMM#7	Gilroy	South Valley Middle School Recreational Amenities	Authority will fund. Gilroy Unified School District would implement.	Recreational amenities partially offset for loss of part of school track/field.	2
G-OMM#8	Gilroy	Rebekah Children's Services (RCS) New Security Fence and Gate	Authority will fund. RCS would implement.	Increased security/safety will help to offset safety effects of Alternative 4.	4
G-OMM#9	Gilroy	San Ysidro Park Enhancements	Authority will fund. City of Gilroy would implement.	Measure will partially offset visual aesthetics DHAE in Gilroy (Alternatives 1, 2).	1, 2



Measure	Community	Proposed Offsetting Mitigation	Implementing Roles and Responsibilities	Reasonable Nexus to Residual DHAEs for Project Alternatives (including consideration of location)	Alternatives
G-OMM#10	Gilroy	Forest Street Park Enhancements	Authority will fund. City of Gilroy would implement.	Measure will partially offset visual aesthetics DHAE in Gilroy (Alternatives 1, 2).	1, 2
SJV-OMM#1	Volta	Volta Elementary School Improvements	Authority will provide funding. Los Banos Unified School District would implement.	Measure offsets noise DHAE (all alternatives) and partially offset visual aesthetics DHAE (Alternatives 1, 2, 3).	1, 2, 3, 4
SJV-OMM#2	Volta	Volta Community Park at the Volta Elementary School	Authority will provide funding. Los Banos Unified School District would implement.	Measure partially offsets visual aesthetics DHAE in San Joaquin Valley for Alternatives 1, 2, and 3 and helps to address adverse visual effects for Alternative 4.	1, 2, 3, 4

AACSA = African American Community Services Agency; Authority = California High-Speed Rail Authority; Ave. = Avenue; Blvd. = Boulevard; DHAE = disproportionately high and adverse effect; I- = Interstate; RCS = Rebekah Children's Services; SCVTA = Santa Clara Valley Transportation Authority; SR = State Route; St. = Street.



The community improvements that were considered but are not proposed to be advanced as offsetting mitigation measures because they did not meet the criteria described above are discussed in Volume 2, Appendix 5-C, including the reasons that they are not being advanced.

5.8.3.2 Secondary Effects Analysis of Proposed Offsetting Mitigation Measures

As articulated in Table 5-27 and described further in Appendix 5-C, for most of the proposed offsetting mitigation measures, the Authority's role will be to provide funding to implementing partners, consisting of local cities or counties, school districts, or community-based organizations. However, like other direct mitigation proposed in this EIR/EIS, the Authority is required to disclose the potential secondary environmental effects of offsetting mitigation measures. That disclosure is provided in Table 5-28. For proposed offsetting mitigation measures that are funded by the Authority, a condition of the funding will be compliance with the relevant and applicable IAMFs in Appendix 2-E and the relevant and applicable direct mitigation measures included in Chapter 3 of the EIR/EIS. The Authority's funding for the project will also include funding to implement the relevant and applicable IAMFs and direct mitigation measures. As discussed in Table 5-28, with implementation of relevant and applicable IAMFs and direct mitigation measures, where necessary, the proposed offsetting mitigation measures are not expected to result in unmitigable secondary environmental effects. Local jurisdictions will be required to comply with CEQA when issuing local approvals and may be required to perform further environmental review.



Table 5-28 Evaluation of Potential Secondary Environmental Effects of Potential Community Improvements

Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
SC/NSJ- OMM#1	Southern Santa Clara/Northern San Jose	Noise Treatments for Up to 3 Residential Buildings Along Caltrain Corridor to Address Existing Noise	The Authority will implement. This measure will involve retrofits to existing buildings, which would not be expected to result in secondary effects.
SC/NSJ- OMM#2	Southern Santa Clara/Northern San Jose	El Camino Real and Benton Street Safety Improvements	Authority will fund. City of Santa Clara would implement. The Authority, as a condition of providing funding, will require the City of Santa Clara to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., air emissions, noise and vibration, temporary sidewalk or lane closures). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure not anticipated to result in unmitigable secondary environmental effects. If site-specific environmental review is required, the City of Santa Clara would conduct such review.
SC/NSJ- OMM#3	Southern Santa Clara/Northern San Jose	Streetscape Improvements	Authority will fund. City of Santa Clara would implement. The proposed measure will include enhanced pedestrian crossings, establishment of bicycle routes, sidewalk improvements, street lighting, street trees, and other landscaping. The Authority, as a condition of providing funding, will require implementing partners to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in minor secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary sidewalk or lane closures). However, temporary construction-related impacts will be avoided or minimized through applicable project features (IAMFs). For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure is not anticipated to result in unmitigable secondary environmental effects. If site-specific environmental review is required, the City of Santa Clara would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
SJD-OMM#1	San Jose Diridon	Streetscape Improvements to Delmas Neighborhood	The Authority will fund this measure. Implementation would be by the City of San Jose. The proposed measure will include enhanced pedestrian crossings, establishment of bicycle routes, sidewalk improvements, street lighting, street trees, and other landscaping. The Authority, as a condition of providing funding, will require implementing partners to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in minor secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary sidewalk or lane closures). However, temporary construction-related impacts will be avoided or minimized through applicable project features (IAMFs). For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in Federal Transit Administration (FTA) and Federal Railroad Administration (FRA) guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure not anticipated to result in unmitigable secondary environmental effects. If site-specific environmental review is required, the City of San Jose would conduct such review.
SJD-OMM#2	San Jose Diridon	Noise Treatments for Residential Buildings Along SR 87/I-280 to Address Existing Noise	The Authority will implement. This measure will involve retrofits to existing buildings, which would not be expected to result in secondary effects.
SJD-OMM#3	San Jose Diridon	Reestablish Inez Jackson Library at the African American Community Service Association (AACSA) Community Center and Center Amenities	The Authority will fund this measure. Implementation would be by the AACSA. All improvements will be inside the existing community center and would not result in significant secondary physical impacts on the environment.
GWG-OMM#1	Gardner/Willow Glen	Gardner Elementary Noise Treatments	The Authority will fund this measure. Implementation would be by the San Jose Unified School District. This measure will involve retrofits to existing buildings or a new sound barrier adjacent to existing freeways or existing school structures, which would not be expected to result in significant secondary effects. If site-specific environmental review is required, San Jose Unified School District would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
GWG-OMM#2	Gardner/Willow Glen	Noise Treatments for Residential Buildings Along SR 87/I-280 to Address Existing Noise	The Authority will implement. This measure will involve retrofits to existing buildings, which would not be expected to result in secondary effects.
GWG-OMM#3	Gardner/Willow Glen	Fuller Park/Fuller Avenue Recreational Improvements	Authority will fund. City of San Jose would implement. The Authority, as a condition of providing funding, will require the City of Jose to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). Compliance with existing laws and regulations and local ordinances will be required for improvements. The relevant and applicable IAMFs and direct mitigation measures included in this EIR/EIS will apply to construction of these improvements, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. For example, the contractor will be required to apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1) and to coordinate construction activities with public utility service providers to minimize or avoid interruptions of service and provide advance notice of any planned interruptions of service (PUE-IAMF#3 and PUE-IAMF#4). With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of San Jose would conduct such review.
WGTA-OMM#1	Washington/ Guadalupe/ Tamien/Alma	Community Art in Community/Local Murals on Publicly Accessible Project Structures (such as viaduct footings)	The Authority will fund this measure. Implementation would be by local community artists and organizations in coordination with the City of San Jose. This measure will involve art installations within the community and would not be expected to result in secondary effects.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
WGTA-OMM#2	Washington/ Guadalupe/ Tamien/Alma	Streetscape Improvements (Goodyear, Humboldt, Floyd)	The Authority will fund this measure. Implementation would be by the City of San Jose. The proposed measure will include enhanced pedestrian crossings, establishment of bicycle routes, sidewalk improvements, street lighting, street trees, and other landscaping. The Authority, as a condition of providing funding, will require the City of San Jose to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in minor secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary sidewalk or lane closures). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). However, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure is not anticipated to result in unmitigable secondary environmental effects. If site-specific environmental review is required, the City of San Jose would conduct such review.
WGTA-OMM#3	Washington/ Guadalupe/ Tamien/Alma	Noise Treatments for Residential Buildings Along SR 87 to Address Existing Noise	The Authority will implement. This measure will involve retrofits to existing buildings, which would not be expected to result in secondary effects.
WGTA-OMM#4	Washington/ Guadalupe/ Tamien/Alma	Rocketship Mateo Sheedy Elementary School Public Address System Upgrade	Authority will fund. Rocketship would implement. This measure will involve retrofits to existing buildings, which would not be expected to result in secondary effects.
WGTA-OMM#5	Washington/ Guadalupe/ Tamien/Alma	Tamien Park Sports Field Netting	Authority will fund. City of San Jose would implement. This measure will consist of sports field ball netting along the west side of the existing park to reduce the chance of soccer balls, basketballs or other field sports balls landing in the active railroad right of way to the west of the park. This would reduce the potential for individuals to enter the railroad right of way to retrieve lost balls. There would be temporary but limited construction noise caused by ball netting installation, but construction would not result in significant secondary effects. The location is not visually sensitive (consisting of view of the railroad and SR 87 transportation infrastructure), and thus installation of ball netting would not have significant aesthetic effects.
SSJ-OMM#1	South San Jose	Landscaping Improvement Elements of Monterey Highway Grand Blvd.	Authority will fund. City of San Jose would implement. This measure will involve installation of new landscaping, which would not be expected to result in significant secondary effects. If site-specific environmental review is required, the City of San Jose would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
SSJ-OMM#2a	South San Jose	Monterey Road Pedestrian/Bike Overpass at Skyway	Authority will fund. City of San Jose would implement. A grade-separated pedestrian/bicycle crossing at Branham Lane was studied as part of the analysis of Alternative 2, and it was determined that no significant aesthetic impacts would occur relative to the
SSJ-OMM#2b	South San Jose	Monterey Road Pedestrian/Bike Overpass at Branham	pedestrian/bicycle crossing (see Final EIR/EIS, Section 3.16, Aesthetics and Visual Quality). Given the similar aesthetic conditions at Skyway Drive and Chynoweth Avenue crossings of Monterey Road, a sill conclusion would apply for a pedestrian/bicycle overcrossing at those locations related to visual aesthetic There is also an existing pedestrian/bicycle overcrossing (Xander's Crossing near Blossom Hill Road) is
SSJ-OMM#2c	South San Jose	Monterey Road Pedestrian/Bike Overpass at Chynoweth	that pedestrian/bicycle crossings are part of the general aesthetic character along Monterey Road already. The Authority, as a condition of providing funding, will require the City of San Jose to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction- related impacts, such as air quality and noise emissions, temporary visual effects, and temporary construction disruption will be avoided or minimized through application of IAMFs. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). The City of San Jose will be required to implement direct mitigation measures to address construction-related air quality emissions (AQ-MM#1 through AQ-MM#4), to ensure compliance with FRA construction noise and vibration limits (NV-MM#1, NV-MM#2), and to address both temporary visual disruption (AVQ-MM#1 and AVQ-MM#2) and permanent visual changes (AVQ-MM#3 through AVQ-MM#5). With the implementation of these project features and direct mitigation measures, significant secondary physical impacts would not occur. If site-specific environmental review is required, the City of San Jose would conduct such review.
SSJ-OMM#3	South San Jose	Noise Treatments for Residential Buildings along US 101 to Address Existing Noise	Authority will implement. This measure will involve retrofits to existing buildings between US 101 and adjacent residential neighborhoods, which would not be expected to result in secondary effects.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
SSJ-OMM#4	South San Jose	Caroline Davis Intermediate School All- Weather Turf and Track	Authority will fund. Oak Grove Unified School District would implement. The Authority, as a condition of providing funding, will require the Oak Grove Unified School District to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration). Compliance with existing laws and regulations and local ordinances will be required for improvements. The relevant and applicable IAMFs and direct mitigation measures included in this EIR/EIS will apply to the construction of these improvements, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. For example, the contractor will be required to apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1). With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the Oak Grove Unified School District would conduct such review.
MH-OMM#1	Morgan Hill	Park/Trail Under Viaduct	Authority will fund. City of Morgan Hill would implement. The land necessary for this measure will be acquired as part of the HSR project for the construction of the viaduct itself. The Authority, as a condition of providing funding, will require the City of Morgan Hill to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). Compliance with existing laws and regulations and local ordinances will be required for improvements. The relevant and applicable IAMFs and direct mitigation measures included in the EIR/EIS for the HSR project, will apply to construction of these improvements, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. For example, the contractor will be required to apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1) and to coordinate construction activities with public utility service providers to minimize or avoid interruptions of service and provide advance notice of any planned interruptions of service (PUE-IAMF#3 and PUE-IAMF#4). With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Morgan Hill would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
MH-OMM#2	Morgan Hill	Railroad Avenue Complete Streets	Authority will fund. City of Morgan Hill would implement. This measure will involve complete streets improvements, including landscaping and modifications to certain sidewalks, curbs, and gutters. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., air emissions, noise and vibration, temporary sidewalk or lane closures). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Morgan Hill would conduct such review.
MH-OMM#3	Morgan Hill	Noise Treatments for Residential Buildings Along US 101 to Address Existing Noise	Authority will implement. This measure will involve retrofits to existing buildings, which would not be expected to result in secondary effects.
MH-OMM#4	Morgan Hill	Fund 30% Design of Master Plan for Caltrain Station Access and Pedestrian Undercrossing	Authority will fund design only. SCVTA, Caltrain, and/or City of Morgan Hill would implement study. Does not include capital cost funding. This measure only consists of 30% design and does not include construction and thus would not result in physical impacts on the environment. This EIR/EIS has analyzed the environmental effects of the pedestrian undercrossing included in the design of Alternatives 2 and 4. Any future proposed additional improvements implemented by SCVTA, Caltrain, and/or the City of Morgan Hill beyond that included in Volume 3, Preliminary Engineering for Project Design Record, designs in this EIR/EIS would be subject to any necessary CEQA review by the proposing agency.
MH-OMM#5	Morgan Hill	Fund School Bus Route Study	Authority will fund. Morgan Hill Unified School District would implement. Does not include funding of buses, bus operations, or infrastructure. This measure only consists of a study and does not include construction or changes in bus operations and thus would not result in physical impacts on the environment.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
MH-OMM#6	Morgan Hill	New Park South of Butterfield	Authority will fund. City of Morgan Hill would implement. Construction of the park could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). The Authority, as a condition of providing funding, will require the City of Morgan Hill to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Compliance with existing laws and regulations and local ordinances will be required. The relevant and applicable IAMFs and direct mitigation measures included in this EIR/EIS, including those for biological resources and agricultural farmland, will apply to construction of the park, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Morgan Hill would conduct such review.
MH-OMM#7	Morgan Hill	New Park North of El Toro Fire Station	Authority will fund. City of Morgan Hill would implement. Construction of some of the park could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). The Authority, as a condition of providing funding, will require the City of Morgan Hill to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Compliance with existing laws and regulations and local ordinances will be required. The relevant and applicable IAMFs and direct mitigation measures included in this EIR/EIS, including those for biological resources and agricultural farmland, will apply to construction of the park, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Morgan Hill would conduct such review.
MH/G-OMM#1	Morgan Hill and Gilroy	Affordable Housing Investment	Authority will fund. Housing organizations or agencies would implement. This measure will result in construction of new affordable housing within Morgan Hill and Gilroy. Secondary construction effects related to various environmental topics could occur on a project-by-project basis. Compliance with local development requirements and environmental clearance under CEQA (and potentially NEPA) will be required for each specific project and would be undertaken by the appropriate jurisdiction.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
G-OMM#1	Gilroy	Sidewalk and Curb Improvement	Authority will fund. City of Gilroy would implement. This measure will involve modifications to certain sidewalks and curb ramps in Gilroy. The Authority, as a condition of providing funding, will require the City of Gilroy to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., air emissions, noise and vibration, temporary sidewalk or lane closures). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Gilroy would conduct such review.
G-OMM#2	Gilroy	Bikeway Improvements (IOOF Avenue, Monterey Road, 6th Street, 4th Street, Alexander Street)	Authority will fund. City of Gilroy would implement. This measure will include bicycle lane improvements along five roads in the Gilroy community. These improvements constitute activities such as incorporating and enhancing bicycle lanes within existing roads that would be unlikely to result in secondary effects. Additionally, these improvements will be implemented in compliance with existing laws and regulations and local ordinances. Accordingly, this measure is not anticipated to result in secondary environmental effects. If site-specific environmental review is required, the City of Gilroy would conduct such review.
G-OMM#3	Gilroy	Neighborhood Street Lighting	Authority will fund. City of Gilroy would implement. This measure will involve installation of new streetlights in Gilroy. The Authority, as a condition of providing funding, will require the City of Gilroy to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., air emissions, noise and vibration, temporary sidewalk closures). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Gilroy would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
G-OMM#4	Gilroy	Murray Avenue Sidewalk Gap Closure Project	Authority will fund. City of Gilroy would implement. This measure will construct sidewalk on the west side of Murray Avenue between Kishimura Drive and Leavesley Road in Gilroy. The Authority, as a condition of providing funding, will require City of Gilroy to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of sidewalk could result in secondary impacts related to temporary construction activities (e.g., air emissions, noise and vibration, temporary lane closures). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). In addition, these construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure is not anticipated to result in unmitigable secondary environmental effects.
G-OMM#5	Gilroy	IOOF Bicycle/Pedestrian Overcrossing and Complete Streets	Authority will fund. City of Gilroy would implement. This measure will construct a bicycle and pedestrian overcrossing at IOOF Avenue as well as additional complete street improvements. The Authority, as a condition of providing funding, will require City of Gilroy to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Construction of bicycle/pedestrian overcrossings and other street and sidewalk improvements could result in secondary impacts related to temporary construction activities (e.g., air quality, noise and vibration, temporary lane closures, visual impacts) and permanent impacts (e.g., visual). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to implement a dust control plan (AQ-IAMF#1), apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1), and prepare and implement a construction transportation plan for minimizing impacts of construction and construction traffic on roadways in coordination with the appropriate local jurisdiction (TR-IAMF#2). Mitigation measures to address construction-related air quality emissions will be implemented (AQ-MM#1 through AQ-MM#4) to ensure compliance with FRA construction noise and vibration limits (NV-MM#1, NV-MM#2) and bedress both temporary visual disruption (AVQ-MM#1 and AVQ-MM#2) and permanent visual changes (AVQ-MM#3 through AVQ-MM#5). With the implementation of these project features, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, these improvements are not anticipated to result in significant secondary environmental effects. In addition, construction activities would be temporary, would occur entirely within existing transportation rights-of-way, and will be implemented in compliance with existing laws and regulations and local ordinances; accordingly, this measure i



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
G-OMM#6	Gilroy	Noise Reduction Program	Authority will implement. This measure will involve retrofits to existing buildings or construction of sound walls between US 101 and adjacent residential neighborhoods, which would not be expected to result in significant secondary effects.
G-OMM#7	Gilroy	South Valley Middle School Recreational Amenities	Authority will fund. Gilroy Unified School District would implement. This measure will involve the provision of funds, which could be used for construction of additional recreational amenities at South Valley Middle School. Construction of additional recreational amenities, such as a pool, could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, impacts on utility services). Temporary construction-related impacts will be avoided or minimized through the application of project features. For example, the contractor will be required to apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1) and to coordinate construction activities with public utility service providers to minimize or avoid interruptions of service and provide advance notice of any planned interruptions of service (PUE-IAMF#3 and PUE-IAMF#4). Additionally, direct mitigation measures will be implemented, as necessary, to address construction-related air quality emissions (AQ-MM#1 through AQ-MM#4), to ensure compliance with FRA construction noise and vibration limits (NV-MM#1, NV-MM#2), and to address both temporary visual disruption (AVQ-MM#1 and AVQ-MM#2) and permanent visual changes (AVQ-MM#3 through AVQ-MM#5). IAMFs, direct mitigation measures, and compliance with existing laws and regulations and local ordinances will be required for improvements to South Valley Middle School; accordingly, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, Gilroy Unified School District would conduct such review.
G-OMM#8	Gilroy	Rebekah Children's Services (RCS) New Security Fence and Gate	Authority will fund. RCS would implement. This measure will consist of fence installation around the existing facility. There would be temporary but limited construction noise caused by fence installation, but construction would not result in significant secondary effects. Installation of a fence would not have significant aesthetic effects.
G-OMM#7	Gilroy	San Ysidro Park Enhancements	Authority will fund this measure. City of Gilroy would implement. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). The Authority, as a condition of providing funding, will require the City of Gilroy to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Compliance with existing laws and regulations and local ordinances will be required for improvements. The relevant and applicable IAMFs and direct mitigation measures included in this EIR/EIS, including those for biological resources and agricultural farmland, will apply to construction of these improvements, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Gilroy would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
G-OMM#7	Gilroy	Forest Street Park Enhancements	Authority will fund. City of Gilroy would implement. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). The Authority, as a condition of providing funding, will require the City of Gilroy to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Compliance with existing laws and regulations and local ordinances will be required for improvements. The relevant and applicable IAMFs and direct mitigation measures included in this EIR/EIS, including those for biological resources and agricultural farmland, will apply to construction of these improvements, and the Authority funding will include the cost of implementing any such IAMFs or direct mitigation measures. With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, the City of Gilroy would conduct such review.
SJV-OMM#1	Volta	Volta School Improvements	Authority will fund. Los Banos Unified School District would implement. This measure involve the provision of funds, which could be used for improvements to, or expansion of, Volta Elementary School. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). For example, the contractor will be required to apply construction practices identified in FTA and FRA guidelines to minimize temporary construction noise and vibration impacts on sensitive receptors (NV-IAMF#1) and to coordinate construction activities with public utility service providers to minimize or avoid interruptions of service and provide advance notice of any planned interruptions of service (PUE-IAMF#3 and PUE-IAMF#4). Implementation of IAMFs and compliance with existing laws and regulations and local ordinances will be required for improvements to Volta Elementary School; accordingly, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, Los Banos Unified School District would conduct such review.



Measure	Community	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
SJV-OMM#2	Volta	Volta Community Park at Volta Elementary School	Authority will fund. Los Banos Unified School District would implement. Construction of some of these improvements could result in secondary impacts related to temporary construction activities (e.g., noise and vibration, temporary impacts on utility services due to relocation of existing utilities or construction of new utility infrastructure). The Authority, as a condition of providing funding, will require the Los Banos Unified School District to implement relevant IAMFs and direct mitigation measures discussed in this EIR/EIS. Compliance with existing laws and regulations and local ordinances will be required for improvements. The site is previously disturbed land within the Volta Elementary School complex and thus is not important farmland and has minimal to no value as habitat for wildlife. The relevant and applicable IAMFs and direct mitigation measures included in the EIR/EIS for the HSR project will apply to construction of these improvements, and the Authority funding will include the cost of implementing any such IAMFs or mitigation measures. With the IAMFs, direct mitigation measures, and compliance with existing laws, regulations, and local ordinances, this measure is not anticipated to result in significant secondary environmental effects. If site-specific environmental review is required, Los Banos Unified School District would conduct such review.

AACSA = African American Community Services Agency; Authority = California High-Speed Rail Authority; Blvd. = Boulevard; CEQA = California Environmental Quality Act; EIR = environmental impact report; EIS = environmental impact statement; FRA = Federal Railroad Administration; FTA = Federal Transit Administration; HSR = high-speed rail; I- = Interstate; IAMFs = impact avoidance and minimization features; NEPA = National Environmental Policy Act; RCS = Rebekah Children's Services; SCVTA = Santa Clara Valley Transportation Authority; SR = State Route.



5.8.4 Summary of Disproportionately High and Adverse Effects by Community Areas with Proposed Offsetting Mitigation Measures

The proposed offsetting mitigation measures will reduce disproportionately high and adverse effects as discussed by community below. The community areas are shown on Figures 2-1 through 2-8 in Volume 2, Appendix 5-C.

- Santa Clara/North San Jose: This community is along the Caltrain corridor from north of I-880 to Scott Boulevard, as shown on Figure 2-1 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse visual effects due to the aerial viaduct for Alternatives 2 and 3; and (2) adverse noise effects with Alternative 4. The Authority is proposing several offsetting mitigation measures in this area:
 - For Alternative 4, per SC/NSJ-OMM#1, the Authority proposes to install noise insulation for certain existing residences along the west side of Caltrain Corridor between the Santa Clara Caltrain Station and I-880 to reduce noise effects from existing train traffic. This measure will reduce community noise effects sufficient to offset the disproportionately high and adverse noise effects with Alternative 4 in this area.
 - For all alternatives, per SC/NSJ-OMM#2, the Authority proposes to provide funding to the City of Santa Clara to implement pedestrian safety improvements to the El Camino Real and Benton Street intersection. This measure is a community-recommended measure that will help to offset the general effects of project alternatives in Santa Clara.
 - For Alternatives 2 and 3, per SC/NSJ-OMM#3, the Authority proposes to provide funding to the City of Santa Clara to implement streetscape improvements to neighborhoods along the Caltrain right-of-way to improve both visual aesthetics and safety for local residents. While this measure will help improve community aesthetics, it is not considered sufficient to offset the disproportionately high and adverse visual effect of the aerial viaduct with Alternatives 2 and 3 in this area.
- San Jose Diridon: This community is located in the vicinity of the existing San Jose Diridon Station, as shown on Figure 2-2 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse visual effects due to the aerial viaduct for Alternatives 1, 2, and 3; and (2) adverse noise effects with Alternative 4. The Authority is proposing several offsetting mitigation measures in this area:
 - For Alternatives 1, 2, and 3, per SJD-OMM#1, the Authority proposes to provide funding to the City of San Jose to implement streetscape improvements to the Delmas neighborhood to improve both visual aesthetics and safety for local residents. While this measure will help improve community aesthetics, it is not considered sufficient to offset the disproportionately high and adverse visual effect of the aerial viaduct with Alternatives 1, 2, and 3 in this area.
 - For Alternative 4, per SJD-OMM#2, the Authority will install noise insulation for certain existing residences along the west side of SR 87 and the north side of I-280 in areas near the San Jose Diridon Station to reduce noise effects from existing highway traffic. This measure will reduce community noise effects sufficient to offset the disproportionately high and adverse noise effects with Alternative 4 in this area.
 - For all alternatives, per SJD-OMM#3, the Authority proposes to funding to the African American Community Services Association to reestablish Inez Jackson Library at the African American Community Services Association community center and center amenities. This measure will provide a "noise refuge" from existing and project noise to help offset noise effects with Alternative 4 and is also a general improvement recommended by African American Community Services Association to help offset general effects of the project alternatives on vulnerable populations.



 Gardner/Willow Glen: This community is located south of downtown San Jose south of I-280 and west of SR 87, as shown on Figure 2-3 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would remain a residual disproportionately high and adverse effect due to the adverse operational noise effects with Alternative 4 related to atgrade train operations. The Authority is proposing several offsetting mitigation measures in this area:

For Alternative 4:

- Per GWG-OMM#1, the Authority proposes to provide funding to the San Jose Unified School District to implement noise treatments to benefit the Gardner Elementary School if a soundwall is not installed due to the Santa Clara VTA I-280 Soundwalls Project.²⁷ Per Community Improvement GWG-OMM#2, the Authority will install noise insulation for certain existing residences along the west side of SR 87 and the north side of I-280 to reduce noise effects from existing highway traffic. These measures will reduce community noise effects sufficiently to offset the disproportionately high and adverse noise effects associated with Alternative 4 in this area.
- Per GWG-OMM#3, the Authority proposes to provide funding to the City of San Jose to implement recreational improvements to Fuller Park/Fuller Avenue. This measure is a community-recommended measure that will help to offset the general effects of project alternatives in Gardner/North Willow Glen.
- Washington/Guadalupe/Tamien/Alma/Almaden: This community is located south of downtown San Jose south of I-280 and east of SR 87, as shown on Figure 2-4 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse visual effects for Alternatives 1, 2, and 3 related to the aerial viaduct; and (2) adverse operational noise effects with Alternative 4 related to at-grade train operations. The Authority is proposing several offsetting mitigation measures in this area:
 - For Alternatives 1, 2, and 3:
 - Per WGTA-OMM#1, the Authority, in partnership with local artists, community organizations, and the City of San Jose, will support community art installations in the local community and local murals on publicly accessible project structures (such as viaduct footings), which will also help to improve visual aesthetics and a sense of community.
 - Per WGTA-OMM#2, the Authority proposes to provide funding to the City of San Jose to implement streetscape improvements along Goodyear Street, Humboldt Street, and Floyd Street to improve both visual aesthetics and safety for local residents.
 - While the two measures above will help improve community aesthetics, they are not considered sufficient to offset the disproportionately high and adverse visual effect of the aerial viaduct with Alternatives 1, 2, and 3 in this area.
 - For Alternative 4:
 - Per WGTA-OMM#3, the Authority will install noise insulation for certain existing residences along the west side of SR 87 to reduce noise effects from existing highway traffic.
 - Per WGTA-OMM#4, the Authority proposes to provide funding to Rocketship Mateo Sheedy Elementary School to update the existing public address system to help with school operations that are affected by existing airplane and highway traffic. This

²⁷ As described in Volume II, Appendix 5-C, Attachment C, if the VTA I-280 Soundwalls Project advances with a soundwall that benefits the Gardner Elementary School, then the Authority would instead provide the funding associated with GWG-OMM#1 to VTA to support that project.



- measure will reduce community noise effects sufficient to offset the disproportionately high and adverse noise effects associated with Alternative 4 in this area.
- Per Community Improvement WGTA-OMM#5, the Authority proposes to provide funding to the City of San Jose to install sports field ball netting at Tamien Park, which will enhance safety of the existing park adjacent to the existing railroad right-ofway by reducing the potential for individuals to enter the railroad right of way to retrieve lost balls.
- South San Jose: This community is located along Monterey Road in South San Jose south of Capitol Expressway, as shown on Figure 2-5 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) the adverse visual effects for Alternatives 1, 2, and 3 related to the aerial viaduct; (2) the adverse emergency response delays for Alternative 4 related to increased gate-down time at the at-grade crossings at Skyway Drive, Branham Lane, and Chynoweth Avenue (which would only occur if the City of San Jose chooses to not implement the improvements included in proposed direct Mitigation Measure SS-MM#4 based on the construction funding and partial operational funding proposed by the Authority); and (3) the adverse operational noise effects with Alternative 4 related to at-grade train operations, including the sounding of safety horns at the at-grade crossings. The Authority is proposing several offsetting mitigation measures in this area:
 - For Alternatives 1, 2 and 3, per SSJ-OMM#1, the Authority proposes to fund the landscape improvements for the City of San Jose's Monterey Grand Boulevard initiative (with implementation by the City of San Jose), but this measure is not considered sufficient to reduce the disproportionately high and adverse visual effect of the aerial viaduct with Alternatives 1, 2, and 3 in this area.
 - For Alternative 4:
 - Per SSJ-OMM#2, the Authority proposes to provide funding to the City of San Jose to construct three new pedestrian/bicycle overcrossings of Monterey Road and the railroad corridor at Skyway Drive, Branham Lane, and Chynoweth Avenue. While this measure will not avoid emergency response delays, the overcrossings will enhance pedestrian and bicycle safety along Monterey Road and the railroad corridor in South San Jose, which in combination with the proposed direct mitigation and the project's benefits related to safety are considered overall to offset the emergency response delays with Alternative 4 in this area. As noted above, if the improvements included in proposed direct Mitigation Measure SS-MM#4 in the Final EIR/EIS are implemented by the City of San Jose with the Authority proposed funding, then adverse emergency response delays will be avoided, and this offsetting mitigation measure will not be necessary.
 - Per SSJ-OMM#3, the Authority will install noise insulation for certain existing residences to reduce noise effects from existing road traffic along US 101. This measure will reduce community noise effects sufficient to offset the disproportionately high and adverse noise effects associated with Alternative 4 in this area.
 - For all alternatives, per SSJ-OMM#4, the Authority proposes to fund the construction of an all-weather turf and track at the Caroline Davis Intermediate School, which could be used by students and the community at large. This measure is a communityrecommended measure that will help to offset the general effects of project alternatives in South San Jose.
- Morgan Hill: This community is in Morgan Hill, as shown on Figure 2-6 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) the adverse visual effects for Alternatives 1, 2, and 3 related to either the aerial viaduct (Alternatives 1 and 3) or the elevated embankment (Alternative 2); (2) the adverse residential displacement effects for



Alternative 2 related to inadequate relocation availability in Morgan Hill to absorb the amount of displacements that would occur; and (3) the adverse operational noise effects with Alternative 4 related to at-grade train operations. The Authority is proposing several offsetting mitigation measures in this area:

For Alternatives 1 and 3, per MH-OMM#1, the Authority proposes to provide funding to the City of Morgan Hill to construct a park and trail under certain portions of the HSR viaduct along US 101. This measure will help to improve neighborhood aesthetics but is not considered sufficient to offset the disproportionately high and adverse visual effects of the aerial viaduct in this area.

For Alternative 2:

- Per MH-OMM#2, the Authority proposes to provide funding to the City of Morgan Hill to implement Railroad Avenue Complete Streets improvements to improve both visual aesthetics and safety for local residents. While this measure will help improve community aesthetics, it is not considered sufficient to offset the disproportionately high and adverse visual effect of the elevated embankment with Alternative 2 in this area.
- Per MH-OMM#6 and MH-OMM#7, the Authority proposes to fund the acquisition and construction of new community parks south of Butterfield and north of the El Toro Fire Station. These measures will help to improve neighborhood aesthetics but are not considered sufficient to offset the disproportionately high and adverse visual effects of the elevated embankment and new grade separations in Morgan Hill.
- Per MH-MH/G#1, the Authority proposes to partially fund affordable housing development at 50 percent of full cost of housing units for every residential unit that cannot be relocated in Gilroy under Alternative 2 in partnership with affordable housing agencies and/or organizations. This measure will be in addition to state and federal required relocation assistance and direct mitigation to help affected displaced residents. This measure is considered adequate to offset the residential displacement disproportionately high and adverse effects of Alternative 2 in this area.
- For Alternatives 2 and 4, per MH-OMM#4, the Authority proposes to fund the 30 percent design of a Master Plan for the Caltrain Station access and pedestrian undercrossing, which is a community-recommended study to help the City of Morgan Hill evaluate opportunities to improve community connections across the existing railroad corridor, enhance aesthetics, and enhance community cohesion.

For Alternative 4:

- Per MH-OMM#3, the Authority will install noise insulation for existing residences along US 101 to reduce noise effects from existing highway traffic. This measure will reduce community noise effects sufficient to offset the disproportionately high and adverse noise effects with Alternative 4 in this area.
- Per MH-OMM#5, the Authority proposes to fund a school bus route study, which is a community-recommended study to help the Morgan Hill Unified School District evaluate optimal bus routes for the school.
- **Gilroy:** This community is in Gilroy, as shown as shown on Figure 2-7 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse visual effects for Alternatives 1, 2, and 3 related to either the aerial viaduct (Alternatives 1 and 3) or the elevated embankment (Alternative 2); (2) adverse residential displacement (Alternative 2) and business displacement effects (Alternative 2) that would occur because there is inadequate relocation availability in Gilroy to absorb the amount of displacements that would occur; (3) adverse emergency response delays for Alternative 4 related to increased gate-down time at the atgrade crossings, which would only occur if the City of Gilroy chooses to not implement the



improvements included in proposed direct Mitigation Measure SS-MM#4 based on the construction funding and partial operational funding proposed by the Authority; (4) adverse park effects for Alternative 2 related to acquisition of part of the field and track for the South Valley Middle School; and (5) adverse operational noise effects with Alternatives 1, 2, and 4 related to train operations. The Authority is proposing several offsetting mitigation measures in this community area:

- For Alternatives 1, 2, and 4, per G-OMM#1, the Authority will install noise insulation for certain existing residences along US 101 to reduce noise effects from existing highway traffic. This measure will reduce community noise effects sufficient to offset the disproportionately high and adverse noise effects with Alternatives 1, 2, and 4 in this area.
- For Alternatives 1 and 2, Per G-OMM#9 and G-OMM#10, the Authority proposes to fund enhancements of San Ysidro Park and Forest Street Park. These measures will help to improve neighborhood aesthetics but are not considered sufficient to offset the disproportionately high and adverse visual effects of the elevated viaduct with Alternative 1 or the elevated embankment and new grade separations with Alternative 2.

For Alternative 2:

- Per G-OMM#7, the Authority proposes to provide funding to the Gilroy Unified School District for recreational amenities for the South Valley Middle School. While this measure will help to provide recreational opportunities for students and the neighboring community, it is not considered sufficient to offset the disproportionately high and adverse effect of loss of use of a portion of the field and track at the school.
- Per G-MH/GM#1, the Authority proposes to partially fund affordable housing development at 50 percent of full cost of housing units for every residential unit that cannot be relocated within the community in Gilroy in partnership with affordable housing agencies and/or organizations. This measure will be in addition to state and federal required relocation assistance and direct mitigation to help affected displaced residents. This measure is considered adequate to offset the residential displacement disproportionately high and adverse effects with Alternative 2 in this area.
- For Alternative 4, per G-OMM#1 through G-OMM#6 and G-OMM#8, the Authority proposes to provide funding to the City of Gilroy to implement a series of investments in community safety in Gilroy, including a new pedestrian/bicycle overcrossing of the railroad at IOOF Avenue, bikeway improvements (along IOOF Avenue, Monterey Road, 6th Street, 4th Street, and Alexander Street), sidewalk gap closure along Murray Avenue, neighborhood street lighting, and sidewalk and curb improvements, and new security fencing at the Rebekah Children's Services facility, that, in combination with project mitigation and project safety investments, will offset the disproportionately high and adverse effect related to emergency vehicle response times in this area. As noted above, if the improvements included in proposed direct Mitigation Measure SS-MM#4 in the Final EIR/EIS are implemented by the City of Gilroy with the Authority proposed funding, then adverse emergency response delays will be avoided, and these offsetting mitigation measures will not be necessary.
- San Joaquin Valley: This community is in the San Joaquin Valley Subsection, as shown on Figure 2-8 in Volume 2, Appendix 5-C. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) the adverse visual effects for Alternatives 1, 2, and 3;²⁸ and (2) the adverse operational noise effects with all alternatives related to train operations. The Authority is proposing the following offsetting mitigation measures in this area for all alternatives:

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²⁸ Although Alternative 4 would have the same design at the other alternatives, on an end-to-end basis, Alternative 4 would not have a disproportionately high and adverse effect relative to visual aesthetics.



- Per SJV-OMM#1, the Authority proposes to fund a series of enhancements to the Volta Elementary School, including improved windows and facilities, which will help reduce noise levels for students, faculty, and community users of school facilities; will enhance student educational experiences; and will foster community cohesion for residents in neighboring areas with students at the school.
- Per SJV-OMM#2, the Authority proposes to also fund development of a community park
 at the Volta School. This measure will help to improve local visual aesthetics, will create a
 sense of place for the Volta community and environs, will enhance students' recreational
 activities, and will provide a place for community recreation and gathering.
- While the proposed offsetting mitigation measures will not avoid the visual aesthetic effects of the elevated alignment or the outdoor operational noise effects at affected residences, the combination of direct mitigation (including noise barriers, sound insulation, noise easements, and design-level investigation and implementation of site-specific sound reductions) and the offsetting benefits of Volta School enhancements and a community park in Volta is considered sufficient to offset the disproportionately high and adverse noise effects (all alternatives) but not the disproportionately high and adverse visual aesthetics effects of aerial viaduct (Alternatives 1, 2, and 3) in this area. The Volta School enhancements and the community park in Volta will also help to reduce the adverse visual effects associated with Alternative 4 in the San Joaquin Valley, but as described in Section 5.6, Alternative 4 would not result in a disproportionately high and adverse effect on minority populations or low-income populations on an end-to-end basis in the project section overall.

5.9 California High-Speed Rail Authority's Environmental Justice Determination

The Authority's determination regarding whether the project alternatives would result in disproportionately high and adverse effects to environmental justice communities is discussed below. Environmental justice communities include locations where minority populations and/or low-income populations are present in greater proportion than in the reference community. Minority populations or low-income populations in the determination below are equally treated as environmental justice communities.

The project alternatives would result in regional benefits associated with increased statewide accessibility to jobs, goods, and services; reduced VMT; long-term air quality improvements; reduction in greenhouse gas emissions; public safety benefits realized through new safety and signaling systems; and new employment opportunities during construction and operations. Public safety benefits would be realized throughout the project section, while benefits related to increased accessibility, emission reductions, long-term air quality improvements, and job creation would be realized across the three-county region. Regional beneficial effects for minority populations and low-income populations within the environmental justice RSA would be similar to the beneficial effects for the general public. HSR stations can also become a focal point of economic activity as public and private investment seeks to capture the travel benefits of increased intercity accessibility. Localized beneficial effects are anticipated in the area surrounding the San Jose Diridon and Downtown Gilroy Stations, where minority populations and low-income populations are present. These offsetting benefits of the project would reduce the overall effect on minority populations and low-income populations in the vicinity of HSR stations. These benefits were taken into account in the summary in Section 5.7.

As described in Section 5.7, after consideration of project adverse effects, direct mitigation, project benefits, and community input from individuals, organizations, and representatives of minority communities and low-income communities but prior to consideration of proposed offsetting mitigation measures, the project would result in disproportionately high and adverse effects on minority populations and low-income populations within the environmental justice RSA. These effects are associated with the following: aesthetics and visual quality between San Jose and Gilroy (Alternatives 1, 2, and 3); residential displacements in Morgan Hill and Gilroy



(Alternative 2); emergency vehicle response time delays in South San Jose and Gilroy (Alternative 4); partial acquisition of South Valley Middle School district play area in Gilroy (Alternative 2); and operational noise (Alternatives 1 and 4 in Santa Clara; Alternative 4 in several areas in San Jose (near the Diridon Station, Gardner/Willow Glen, Washington/Guadalupe/Tamien/Alma/Almaden, and South San Jose), and Morgan Hill; and all alternatives in Gilroy and the San Joaquin Valley).

As described in Section 5.8, the Authority has identified offsetting mitigation measures that have a reasonable nexus to residual disproportionately high and adverse effects that would offset some of these effects. The Authority considered input from individuals, organizations, and representatives of minority communities and low-income communities on the value of the offsetting mitigation measures. The Authority is committed to implementing the specific identified offsetting mitigation measures (for the different alternatives) working in concert with local implementing partners. After consideration of direct mitigation, project benefits, and offsetting mitigation measures, the following disproportionately high and adverse effects would remain for the following reasons:

- Alternatives 1, 2, and 3 would have a disproportionately high and adverse effect on low-income populations related to aesthetics and visual quality because there is no feasible direct or offsetting mitigation that can fully avoid, mitigate, or otherwise offset the visual aesthetic effects of extensive areas of aerial viaduct (or embankment with Alternative 2). These elevated features would become character-defining features for communities surrounding them. Feasible direct mitigation will help with the appearance of elevated sections, but the elevated sections would remain highly prominent. Feasible offsetting mitigation measures, such as local streetscape improvements, landscaping, and community art will help to improve aesthetics in neighboring areas, but the elevated sections would remain highly prominent and character-defining.
- Alternative 2 would have a disproportionately high and adverse effect on minority populations and low-income populations related to the loss of a portion of the South Valley Middle School play area in Gilroy. Feasible offsetting mitigation measures consisting of funding investment in recreational facilities and recreational service for the school will help to improve recreational activities and opportunities for affected students but will not replace the lost functionality of a full school sports track and field. Replacement on site of the full sports track and field is not feasible due to a lack of available space at the school and replacement off site would have inferior functionality to an attached sports track and field.

In accordance with USDOT Order 5610.2C, if disproportionately high and adverse effects are identified, the action will only be carried out if the Authority determines that "further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable." In this document, the Authority has made its final determination concerning whether the project alternatives would or would not have a disproportionately high and adverse effect on minority populations and low-income populations considering all of the following: the project's adverse effects on these populations; the distribution of these populations in the resource study area; feasible direct mitigation for those adverse effects; project benefits; practicable offsetting mitigation measures; whether direct mitigation measures, project benefits and offsetting mitigation would be applied equally to minority populations and low income population as to non-minority and non-low-income populations; social, religious, or cultural resources or public services particularly important to minority populations and low-income populations; and the input and perceptions of minority populations and low-income populations, including regarding the adverse effects identified, direct mitigation, the value of project benefits, and the effect of offsetting mitigation measures.

Considering the totality of these factors, the Authority determines as follows:

 Alternatives 1, 2, and 3 would have a disproportionately high and adverse effect on lowincome populations related to aesthetics and visual quality. No further feasible mitigation measures are available to avoid or further reduce these effects. Below-grade or tunneled alternatives would substantially reduce these effects, but such alternatives were determined



to be infeasible based on the analysis in Volume 2, Appendix 2-I, Alternatives Considered During Alternatives Screening Process.

- Implementation of Alternative 4 would substantially reduce high and adverse effects related to aesthetics and visual quality and would not result in a disproportionately high and adverse effect on minority populations or low-income populations.
- Alternative 2 would have a disproportionately high and adverse effect on minority populations and low-income populations related to the loss of a portion of the South Valley Middle School district play area in Gilroy. Implementation of Alternative 1, 3, or 4 would avoid this disproportionately high and adverse effect.

Other alternatives have been evaluated as described in Chapter 2, Alternatives, and the Authority, as NEPA lead agency, has determined none would have fewer adverse effects on environmental justice communities and satisfy the need for the project than Alternative 4, the Preferred Alternative. In addition other alternatives would have other adverse effects to the natural and human environment that are greater than Alternative 4. Section 2.5, Alternatives Considered during Alternatives Screening Process, of this Final EIR/EIS provides a detailed discussion of the alternatives considered, the alternatives withdrawn from further consideration, the reasons for their withdrawal, and the alternatives ultimately carried forward in the EIR/EIS analysis. Appendix 2-I summarizes the previous and current alternatives and lists reasons for the withdrawal of alternatives. The effects of the four analyzed alternatives are described in Chapters 3, 4, and this chapter. As noted above, Alternatives 1, 2, and 3 would have residual disproportionately high and adverse effects on environmental justice communities, whereas Alternative 4 would not. Therefore, the Authority, as NEPA lead agency, has determined that no other alternatives to the Preferred Alternative are practicable that would have fewer adverse effects on environmental justice communities while also satisfying the purpose of the HSR project.

The Authority, as NEPA lead agency, also has determined that there is a substantial need, based on the overall public interest and a great public benefit, as described in Section 1.2.4, Statewide and Regional Need for the High-Speed Rail System in the San Jose to Merced Project Section Area, for an HSR system that connects the Los Angeles area to the San Francisco Bay Area (of which the connection with the San Jose to Merced Project Section is an indispensable part).

The San Jose to Merced Project Section is an essential component of the statewide HSR system. The San Jose to Merced Project Section would provide the cities of San Jose and Gilroy, as well as other communities in the vicinity of the proposed HSR stations, with access to a new transportation mode; contribute to increased mobility throughout California; and provide for constructing a maintenance-of-way facility where the HSR trains would be inspected, and light maintenance/repair activities would take place. The need for an HSR system exists statewide, with regional demand contributing to this need. As discussed in Section 1.2.4.1, Travel Demand and Capacity Constraints, the San Jose to Merced Project Section would contribute considerably to filling the statewide need for intercity transportation service that would connect it with the major population and economic centers and to other regions of the state.