

5 ENVIRONMENTAL JUSTICE

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

- Chapter 5 was updated throughout with respect to the Authority’s preliminary conclusions pertaining to Environmental Justice.
- Table 5-1, Summary of Regional and Local Plans, was updated to include information from the City of Palmdale’s most recent General Plan
- Table 5-4, Summary of Environmental Justice Outreach Events, was updated to reflect project outreach events held between January 2015 through December 2018, and between January 2020 through January 2024.
- Table 5-5, Summary of Post-Mitigation NEPA Effects – All Build Alternatives, Table 5-24, Summary of Potential Disproportionately High and Adverse Effects on EJ Populations (Before and After EJ-Specific Mitigation Measures and IAMFs), and Table 5-25, Summary of Proposed Offsetting Mitigation Measures, were revised to reflect updated environmental justice analysis as well as additional IAMFs and mitigation measures specific to environmental justice communities.
- Section 5.2.1 Laws, Regulations, and Orders, was updated to include the Justice40 Initiative, USEO 13895, USEO 13990, and USEO 14096.
- Section 5.4.2, Impact Avoidance and Minimization Features, was revised to include newly developed environmental justice-specific impact avoidance and minimization features.
- Section 5.4.4, Methods for Environmental Justice Impact Analysis, was updated to explain in detail the Authority’s methods and methodology and to explain the Authority’s review of more recent census data during preparation of the Final EIR/EIS.
- Section 5.6.1, Engagement Methods Input from Environmental Justice Populations, and Section 5.6.3, Summary of Environmental Justice Engagement, were revised to reflect 2015 as the date outreach events began.
- Section 5.6.3, Summary of Environmental Justice Engagement, was updated to reflect project outreach events held in November and December 2023.
- AQ-IAMF#5 in Section 5.7.2.2 was revised to reflect a 2020 model year for on-road trucks.
- Section 5.7.2.1, Transportation, was revised to include discussion of spoils hauling routes on EJ communities and to expand analysis on construction-phase traffic effects on environmental justice communities.
- Section 5.7.2.2, Air Quality and Global Climate Change, was revised to assess how project construction-period emissions exceedances of California or National Ambient Air Quality Standards would affect EJ communities. The section was also revised to include discussion on air quality health risk, whether CAAQS or NAAQS exceedances are located near sensitive receptors in EJ communities, and to add an EJ-specific air quality mitigation measure (EJ-MM#2).
- Section 5.7.2.3, Noise and Vibration, was revised to include discussion on the proportion of sensitive receptors that are located in EJ communities that would be adversely affected from construction noise and spoils hauling, after application of general noise and vibration mitigations. The discussion was also revised to add an EJ-specific measure (EJ-MM#1) to require community review of proposed mitigations and monitoring for construction-phase noise.

- Section 5.7.2.8, Socioeconomics and Communities, including Table 5-12 through Table 5-17, was revised to include business displacements associated with the Burbank Avion development.
- Section 5.8.4, Offsetting Mitigation Measures (previously Offsetting Project Benefits to All EJ Communities or to Specific Communities), was revised to include a brief discussion of EJ communities directly to the north and west of the Burbank Airport Station (as shown in Figure 5-6) that would benefit from the High-Speed Rail (HSR) Build Alternative as a result of improved regional accessibility, and to include discussion regarding new project offsetting mitigation measures (OMMs) that will be implemented to offset potentially disproportionate and adverse effects on EJ communities.
- Section 5.9, Environmental Justice Determination, was updated to describe the Authority's final disproportionately high and adverse effect determinations, after application of OMMs.

5.1 Introduction

This section describes the existing conditions related to environmental justice (EJ) and minority populations and low-income populations within the reference community and the resource study area (RSA) (e.g., EJ populations), and summarizes EJ engagement with minority populations and low-income populations and key issues and concerns raised by these populations. The chapter also analyzes the effects of the No Project Alternative and the Palmdale to Burbank Project Section Build Alternatives on minority populations and low-income populations and identifies whether the Build Alternatives would have a disproportionately high and adverse effect on minority populations and low-income populations, and describes cumulative effects that could occur in combination with past, present, and reasonably foreseeable future actions.

Environmental Justice

Environmental Justice is a National Environmental Policy Act analysis mandated by United States Presidential Executive Order 12898 that requires federal agencies to identify and assess, as appropriate, disproportionately high and adverse environmental and human health effects on minority communities and low-income populations. Environmental Justice guidance also requires that there are opportunities for substantive input for minority and/or low-income populations in the project planning process (Authority 2017).

EJ 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 EJ must address, to the extent practicable and permitted by law, the disproportionately high and adverse human health or environmental effects of transportation projects' programs, policies, and activities on minority populations and low-income populations. EJ 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.

This EJ analysis complies with United States Presidential Executive Order (USEO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which requires federal agencies to assess the potential for their actions to have disproportionately high and adverse environmental and health effects on minority and/or low-income populations. This chapter also complies with the United States Department of Transportation's (USDOT) Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (USDOT order 5610.2C), the Federal Railroad Administration (FRA) *Procedures for Considering Environmental Impacts* (64 *Federal Register* 28556), the California High-Speed Rail Authority's (Authority) *Title VI Program Plan, Limited English Proficiency Plan, and Environmental Justice Guidance*.

Where appropriate, this analysis also incorporates guidance from the Federal Highway Administration and the Federal Transit Administration (FTA). These guidance documents include Federal Highway Administration Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (FHWA Order 6640.23A) and Environmental Justice Policy Guidance for Federal Transit Administration Recipients (FTA Circular 4703.1).

This EJ analysis is being released by the Authority pursuant to 23 U.S. Code (U.S.C.) Section 327 and the terms of the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (MOU) (FRA and State of California 2019) assigning the Authority responsibility for complying with NEPA and other federal environmental laws, including USEO 12898 and related USDOT orders and guidance. This chapter describes the existing conditions related to EJ populations within the reference community and RSA, as defined in Section 5.4.1. Adverse effects on minority and/or low-income populations are assessed to determine whether the California High-Speed Rail (HSR) System may have disproportionately high and adverse environmental and health effects on these EJ populations.

This EJ analysis is based on information from the following sections, technical reports, and appendices of this Final EIR/EIS:

- Section 3.2, Transportation, analyzes transportation-related impacts, circulation during construction, and parking supply near station areas.
- Section 3.3, Air Quality and Global Climate Change, identifies the potential increases in pollutant and greenhouse gas emissions.
- Section 3.4, Noise and Vibration, analyzes noise-related impacts on sensitive receptors as a result of the California HSR System.
- Section 3.5, Electromagnetic Interference and Electromagnetic Fields, discusses the measured electromagnetic fields (EMF) and the potential for electromagnetic interference (EMI) from operation of the California HSR System.
- Section 3.8, Hydrology and Water Resources, discusses existing surface-water hydrology, water quality, groundwater, and floodplains, and identifies impacts on these resources for each Build Alternative.
- Section 3.10, Hazardous Materials and Wastes, discusses the potential for the California HSR System construction and operation to spill or mobilize pollutants.
- Section 3.11, Safety and Security, describes the safety and security plans developed by the Authority to ensure that the California HSR System is safe and secure.
- Section 3.12, Socioeconomics and Communities, analyzes the communities and associated development patterns that surround the project alignments.
- Section 3.15, Parks, Recreation, and Open Space, identifies existing parks, recreation, and open space areas and impacts on such land uses as a result of the California HSR System.
- Section 3.16, Aesthetics and Visual Quality, identifies changes to the visual character and quality as a result of the California HSR System.
- Section 3.17, Cultural Resources, describes known and adverse effects on cultural resources that would result from implementation of the California HSR System.
- Section 3.19, Cumulative Impacts, analyzes the combined impacts associated with implementing the Build Alternatives in combination with other past, present, and reasonably foreseeable future actions or projects.

The *Palmdale to Burbank Project Section: Community Impact Assessment* (Authority 2019a) and the *Palmdale to Burbank Project Section: Draft Relocation Impact Report* (Authority 2019b) provide additional technical information about communities that supports this EJ analysis. In addition, the following appendices and technical reports provide more detailed information:

- Appendix 2-E, Impact Avoidance and Minimization Features (IAMFs), lists IAMFs included as applicable in each of the Build Alternatives for the purposes of the environmental impact analysis.
- Appendix 2-H, Regional and Local Policy Consistency Analysis, provides a Regional and Local Policy Consistency Table, which lists EJ goals and policies applicable to the Palmdale

to Burbank Project Section and notes the Build Alternatives' consistency or inconsistency with each.

- Appendix 5-A, *Palmdale to Burbank Project Section: Environmental Justice Outreach Plan*, provides an overview of Authority efforts to engage minority and/or low-income populations.

The data used in the analysis are derived from various sources, including the United States Census Bureau (U.S. Census) 2010 Decennial Census, U.S. American Community Survey (ACS), and the California Department of Finance. The 2010–2014 ACS dataset (U.S. Census 2015) was utilized for the Central and Burbank Subsections. In all cases, the most current reliable data available at the time of the analysis were used to document the EJ characteristics in the RSA.

5.1.1 Definition of Environmental Justice Populations

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

- **Minorities**—Minority includes persons who are American Indian, Alaskan Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian and other Pacific Islander, and other individuals who are one other or two or more races. 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 (Authority 2017).
- **Low-Income**—Low-income means a person whose median household income is at or below the Department of Health and Human Services' 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 (Authority 2017).

5.2 Laws, Regulations, and Orders

5.2.1 Federal

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

Title VI of the Civil Rights Act 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 ensure that no person, on the grounds of race, color, or national origin, is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving federal financial assistance.

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

USEO 12898 outlines the federal government's EJ 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 and environmental effects of their programs, policies, and activities, on minority and/or low-income populations in the United States.

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

To implement USEO 12898, USDOT relies on USDOT Order 5610.2C, which canceled and superseded USDOT Order 5610.2B in May 2021. Order 5610.2C applies to actions undertaken by the USDOT operating administrations, including FRA. The USDOT Order affirms the importance of considering EJ principles as part of early planning activities to avoid disproportionately high and adverse effects. The order states that the USDOT will not carry out any programs, policies, or activities that will have a disproportionately high and adverse effect 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 defines a “disproportionately high and adverse effect on minority [and/or] low-income populations” to mean an adverse effect that is predominantly borne by a minority population or a low-income population, or that would be suffered by the minority population or low-income population, and that is appreciably more severe or greater in magnitude than would be suffered by the nonminority population or non-low-income population. “Adverse effects” are defined in the order as “the totality of significant individual or combined negative environmental, human health effects of DOT programs, policies, and activities.”

Presidential Memorandum Accompanying USEO 12898

The Presidential Memorandum accompanying USEO 12898 calls for specific actions to be directed in National Environmental Policy Act (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, EISs, and Records of Decision, whenever feasible, address disproportionately high and adverse environmental effects or proposed actions on minority and/or low-income populations
- Providing opportunities for community input in the NEPA process, including identifying effects and mitigation measures in consultation with affected communities, and improving accessibility to public meetings, official documents, and notices to affected communities

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

USEO 13166 requires each federal agency to ensure that recipients of federal financial assistance provide meaningful access to their programs and activities by limited English proficiency (LEP) 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.

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

The Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) program ensures that persons displaced as a result of a federal action or by an undertaking involving federal funds are treated fairly, consistently, and equitably. This helps to ensure persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

Advancing Racial Equity and Support for Underserved Communities (USEO 13895)

USEO 13895, signed on January 20, 2021, requires each federal agency to draft and implement a plan in coordination with the Assistant to the President for Domestic Policy and the Director of the Office of Management and Budget. The plan shall evaluate and determine whether the agency’s programs and policies maintain obstacles to opportunities and benefits for minority and low-income populations, to enable agencies to formulate policies and programs that provide equitable opportunities and benefits for underserved populations.

Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (USEO 13990)

USEO 13990, signed on January 20, 2021, directs federal agencies to immediately review and take actions to address federal regulations and other actions taken during the last 4 years that conflict with national objectives, which include improving public health and the environment, reducing greenhouse gas emissions, and prioritizing EJ and employment.

Justice40 Initiative (USEO 14008, Section 223)

Section 223 of USEO 14008 established the Justice40 Initiative, which directs 40 percent of the overall benefits of certain federal investments (including investments in clean energy and energy

efficiency, clean transit, affordable and sustainable housing, training and workforce development, the remediation and reduction of legacy pollution, and the development of clean water infrastructure) to flow to disadvantaged communities.

Revitalizing Our Nation’s Commitment to Environmental Justice for All (USEO 14096)

Signed on April 21, 2023, USEO 14096 seeks to fully integrate the considerations of underserved and overburdened communities and populations into all aspects of federal agency planning, prioritizing meaningful engagement and collaboration with EJ communities, and expanding the definition of EJ to add Tribal affiliation and disability to the list of EJ indicators. Federal agencies would be required to prepare and submit an EJ Strategic Plan, in accordance with guidance forthcoming from Council on Environmental Quality (CEQ), prior to October 2024.

Section 3(ix) of USEO 14096 requires the Authority to carry out environmental reviews under NEPA consistent with the statute and its implementing regulations and through the exercise of the Authority's expertise and technical judgment, in a manner that (1) analyzes direct, indirect, and cumulative effects of the project on communities with EJ concerns, (2) considers best available science and information on any disparate health effects (including risks) arising from exposure to pollution and other environmental hazards, such as information related to the race, national origin, socioeconomic status, age, disability, and sex of the individuals exposed, and (3) provides opportunities for early and meaningful involvement in the environmental review process by communities with EJ concerns potentially affected by a proposed project.

Ultimately, USEO 14096—Revitalizing Our Nation’s Commitment to Environmental Justice for All was enacted on April 21, 2023. USEO 14096 on EJ does not rescind USEO 12898, which has been in effect since February 11, 1994, and is currently implemented through USDOT Order 5610.2C. This implementation will continue until further USDOT guidance is provided regarding the implementation of the new USEO 14096 on EJ.

5.2.2 State

California Government Code 65040.12(e)

Section 65040.12(e) defines EJ 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 California Environmental Quality Act (CEQA) process.

California High-Speed Rail Authority Environmental Justice Policy

In August 2012, the Authority adopted an EJ Policy (Authority 2012a). The policy states:

- The Authority will develop and maintain an EJ Guidance in compliance with Title VI of the Civil Rights Act of 1964, USEO 12898, and California state law—Government Code Section 65040.2 et seq. and Public Resources Code Section 1110 et seq.
- The Authority will promote EJ in its programs, policies, and activities to avoid, minimize, or mitigate disproportionately high human health and environmental effects, including social and economic effects on minority and/or low-income populations.
- The Authority will duly emphasize the fair and meaningful involvement of all people regardless of race, color, national origin, or income with respect to HSR system planning, development, operations, and maintenance.
- The Authority will engage the public through public participation forums so that decisions are mitigated and reflect EJ for all communities.

California High-Speed Rail Title VI Plan

In March 2012, the Authority adopted a policy and plan to ensure that the California HSR Program complies with Title VI. The policy states:

- The Authority is committed to ensuring 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.
- The Authority, as a federal grant recipient, is required by FRA to conform to Title VI of the Civil Rights Act of 1964 and related statutes. The Authority's subrecipients and contractors are required to prevent discrimination and ensure nondiscrimination in all of their programs, activities, and services.
- As permitted and authorized by Title VI, the Authority will administer a Title VI Program in accordance with the spirit and intent of the nondiscrimination laws and regulations. The Title VI Plan includes a commitment to inclusive public involvement of all persons affected by the HSR system (Authority 2012a).

California High-Speed Rail Limited English Proficiency Policy and Plan

In May 2012, the Authority adopted a policy and plan to ensure that the California HSR Program complies with the requirements of USEO 13166. The policy states:

- It is the policy of the Authority to communicate effectively and provide meaningful access to LEP individuals to all the Authority's programs, services, and activities. The Authority will provide free language assistance services to LEP individuals encountered or whenever an LEP individual requests language assistance services.
- The Authority will treat LEP individuals with dignity and respect. Language assistance will be provided through a variety of methods, including staff interpreters, translation and interpreter service contracts, and formal arrangements with local organizations providing interpretation or translation services or telephonic interpreter services.

The LEP Policy and Plan supplements the Title VI Plan (Limited English Proficiency Plan); Resolution 12-15 (Authority 2012b).

California Relocation Act (California Government Code § 7260 et seq.)

In parallel with federal law, the California Relocation Act requires state and local governments to provide relocation assistance and benefits to displaced persons who have been displaced as a result of projects undertaken by state or local governments that do not involve federal funds. When federal funding is involved, the Uniform Act takes precedence.

California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund (Senate Bill 535, De León)

This bill requires the California Environmental Protection Agency 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 in disadvantaged communities, as specified. 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. The bill requires administering agencies to report to the California Department of Finance, and the Department of Finance to include in a specified report to the California State Legislature, a description of how administering agencies have fulfilled specified requirements relating to projects providing benefits to, or located in, disadvantaged communities.

5.2.3 Regional and Local

All relevant city, county, and regional plans as well as municipal codes were consulted for this analysis. This includes review of policies pertaining to EJ, the provision of affordable housing, and equitable planning. Table 5-1 provides an overview of the regional and local general plans that contain goals, objectives, and policies relevant to EJ populations.

Table 5-1 Summary of Regional and Local Plans

Regional/Local Plan	Summary
Los Angeles County and Unincorporated Los Angeles County	
Los Angeles County General Plan 2035 (2015)	The Land Use Element contains general conditions and standards for development to implement the General Plan policy regarding regional land-use concerns and to guide the decision-making process in the absence of applicable community-level planning. The General Plan includes policies aimed at expanding transportation options that reduce automobile dependence and increase transit access for underserved transit users, such as seniors, students, low-income households, and persons with disabilities.
Los Angeles County Antelope Valley Area Plan (2015)	<p>The <i>Los Angeles County Antelope Valley Area Plan</i> covers the county's largest planning area, which spans approximately 1,800 square miles, including portions of the Mojave Desert and most of the San Gabriel Mountains and Angeles National Forest (ANF). Among other outcomes, the plan's last update dramatically expanded in size the county's <i>Significant Ecological Areas</i> in the Antelope Valley.</p> <p>This plan includes policies that generally support the development of rail and policies that specifically encourage development of the California HSR System with a station in Palmdale. Moreover, the plan calls for regional transportation system development to consider and mitigate impacts on existing communities and to minimize land-use conflicts.</p>
City of Palmdale	
Palmdale 2045 General Plan (2022)	<p>The <i>Palmdale 2045 General Plan</i> comprises several elements that pertain to socioeconomics and communities, including Land Use and Community Design; Circulation and Mobility; Equitable and Healthy Communities; Housing; Parks, Recreation and Open Space; Conservation; and Public Safety. These elements cover topics including transportation, housing, open space, and community facilities.</p> <p>In particular, the Land Use and Community Design Element establishes a guide for long-range growth and development of the city. The Land Use and Community Design Element serves to inform the public of the City's land-use and community design goals, objectives, and policies for long-term development, guides day-to-day operational decisions of City staff, and establishes land-use classifications for land within the city. The Land Use and Community Design Element promotes a stable and diversified economic base and development of a community identity.</p>

Regional/Local Plan	Summary
City of Los Angeles	
City of Los Angeles General Plan (2001)	The <i>City of Los Angeles General Plan</i> is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the city. The General Plan consists of 11 elements; 10 citywide elements and the Land Use Element or plan for each of the City's 35 Community Planning Areas. The City's General Plan sets forth a conceptual relationship between land use and transportation on a citywide basis. The City aims to prioritize transportation decisions based on outcomes of safety, public health, equity, access, social and economic benefits.
City of Los Angeles Plan for a Healthy Los Angeles (2015)	The <i>City of Los Angeles Plan for a Healthy Los Angeles</i> is an update of the General Plan Health and Wellness Element. The plan establishes goals and policies intended to care for the health and well-being of communities and individuals within the City of Los Angeles.
Sunland-Tujunga-Lake View Terrace-Shadow Hills-East La Tuna Canyon Community Plan (1997)	The Community Plan is part of the City of Los Angeles General Plan. More than half of the land within this Community Plan Area is planned for residential use, and most residential land uses are low density, single-family developments. This Community Plan identifies a significant amount of open space. The Community Plan contains policies to promote an arrangement of land uses, streets, and services that will encourage and contribute to the economic, social, and physical health of the community.
Sylmar Community Plan (1997)	The <i>Sylmar Community Plan</i> is part of the City of Los Angeles General Plan. This plan was developed in the context of promoting a vision of Sylmar as a community that maximizes the development opportunities of the future rail transit system and supports intermodal mass transportation planning to implement linkages to future rail service. Additionally, the plan outlines a vision for Sylmar's long-term physical and economic development and community enhancement.
Arleta-Pacoima Community Plan (1996)	The <i>Arleta-Pacoima Community Plan</i> is part of the City of Los Angeles General Plan and consists of five major sub-areas: Arleta, Pacoima, Hansen Dam, Northeast Valley Enterprise Zone, and the Earthquake Disaster Assistance Project Area. This Community Plan contains a mix of residential, commercial, industrial, open space, and public facilities land uses. The largest share of land use within the Community Plan Area is residential, consisting primarily of low-density residential development. This plan has goals to improve function, design, and economic vitality of commercial corridors. Additionally, this plan encourages the creation of jobs to improve the economic and physical condition of the community.
Sun Valley-La Tuna Canyon Community Plan (1999)	The <i>Sun Valley-La Tuna Canyon Community Plan</i> is part of the <i>City of Los Angeles General Plan</i> . The Community Plan encourages park and ride facilities to interface with rail facilities and development of an intermodal public transportation plan to implement linkages to rail service. The plan has goals to improve function, design, and economic vitality of commercial corridors. Additionally, the plan encourages the creation of jobs to improve the economic and physical condition of the community.

Regional/Local Plan	Summary
City of Burbank	
Burbank 2035 General Plan (2013)	The <i>Burbank 2035 General Plan</i> establishes policies to guide future development and designates appropriate locations for different land uses including open space, parks, residences, commercial uses, industry, schools, and other public uses. Additionally, this plan supports an efficient public transit network including high-speed rail through Burbank. Policies in this plan call for the City to advocate for improved regional rail services linking Burbank's employment and residential centers to the rest of the region.

Sources: *City of Burbank 2013*; *City of Los Angeles 1996, 1997a, 1997b, 1999, 2001, 2016*; *City of Palmdale 1993*; *Los Angeles County 2015a, 2015b*

ANF = Angeles National Forest; HSR = high-speed rail

5.3 Consistency with Plans and Laws

As indicated in Section 3.1.4.3, Consistency with Plans and Laws, CEQA and the CEQ regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws. As such, this Final EIR/EIS evaluates inconsistencies between the six Build Alternatives and federal, state, regional, and local plans and laws to provide planning context.

The Authority, as the lead state and federal agency proposing to construct and operate the California HSR System, is required to comply with all federal and state laws and regulations and to secure all applicable federal and state permits prior to initiating construction on the selected Build Alternative. Therefore, there would be no inconsistencies between the six Build Alternatives and these federal and state laws and regulations.

The Authority is a state agency and therefore is not required to comply with local land use and zoning regulations; however, it has endeavored to design and construct the HSR project so that it is consistent with land use and zoning regulations. For example, the proposed Build Alternatives would incorporate IAMFs that require the contractor to prepare a plan to demonstrate how construction impacts, including those toward EJ populations, will be maintained below applicable standards.

Appendix 2-H, Regional and Local Policy Consistency Analysis, provides a Regional and Local Policy Consistency Table, which lists EJ goals and policies applicable to the Palmdale to Burbank Project Section and notes the Build Alternatives' consistency or inconsistency with each. The Authority reviewed 9 plans, which contained a combined total of 19 policies related to EJ. Each of the six Build Alternatives is consistent with 18 of these policies and inconsistent with 1 of the policies considered. The policy that the Palmdale to Burbank Project Section Build Alternatives is inconsistent with is discussed below.

- **Policy 1.7 (City of Los Angeles Plan for a Healthy Los Angeles)**—Displacement and Health: Reduce the harmful health impacts of displacement on individuals, families, and communities by pursuing strategies to create opportunities for existing residents to benefit from local revitalization efforts by: creating local employment and economic opportunities for low-income residents and local small businesses; expanding and preserving existing housing opportunities available to low-income residents; preserving cultural and social resources; and creating and implementing tools to evaluate and mitigate the potential displacement caused by large-scale investment and development.
 - **Inconsistent for the Refined SR14, SR14A, E1, and E1A Build Alternatives**—In the long term, the areas around the Palmdale and Burbank Stations would likely be revitalized, bringing economic benefits to their communities. In the short term, the project would result in a substantial number of residential and nonresidential displacements (including displacement of environmental justice populations). The gap analysis

performed identified insufficient availability of replacement units to accommodate all displaced residents in Sun Valley (Authority 2019b).

- **Inconsistent for the E2 and E2A Build Alternatives**—In addition to Sun Valley, Lake View Terrace would also have insufficient replacement units available to accommodate all displaced residents for the E2 and E2A Build Alternatives.

Despite the inconsistencies, the project is still “consistent” overall. Although it may not be possible to meet all regional and local general plan goals and policies relevant to EJ populations as outlined in Table 5-1, IAMFs and mitigation measures will generally minimize impacts and would ultimately meet the overall objectives of the local policies.

5.4 Methods for Evaluating Impacts

The methodology used to identify low-income populations and minority populations also incorporates guidance from the CEQ, which has oversight of the federal government’s compliance with USEQ 12898 and NEPA (CEQ 1997). This methodology also incorporates guidance pursuant to USDOT EJ Order 5610.2C and the FRA’s *Procedures for Considering Environmental Impacts* Section 10(b).

Addressing EJ issues involves procedural and technical considerations. Procedural considerations include reaching out to ensure that minority and/or low-income populations and other traditionally underserved populations are effectively engaged in public involvement processes. The following section does not address the procedural process, but rather focuses on the technical analysis conducted for this EIR/EIS (refer to Appendix 5-A for the complete Environmental Justice Outreach Plan, including discussion of procedural considerations). Technical considerations involve such issues as the choice of appropriate data sets and assumptions used for the identification of potentially affected populations for EJ assessments. The basic steps undertaken for this analysis are outlined in Section 5.4.1 through Section 5.4.4, below.

5.4.1 Defining Reference Community and Resource Study Area

For this analysis, the reference community is Los Angeles County because the project is entirely contained within Los Angeles County. Since the percentage of Los Angeles County’s population that is low-income or minority is higher than that of California, using Los Angeles County as the reference community provides the appropriate regional context. Information for the Los Angeles County reference community is presented throughout this analysis, and specifically in Section 5.5 including Table 5-2, to provide context and to allow for comparison between communities within the RSA and the reference community.

As defined in Section 3.1, Introduction, RSAs are the geographic boundaries in which the environmental investigations specific to each resource topic were conducted. For this EJ analysis, the RSA extends 0.5 mile beyond the project alignment footprint and 0.5 mile beyond the edges of a rectangular-shaped area around the perimeter of potential station footprints. The RSA comprises census block groups that overlap the 0.5-mile buffer area and was expanded when necessary to avoid splitting census block groups. The RSAs for each of the Build Alternatives are mapped in Section 5.5.1 through Section 5.5.5.2. Table 5-3 later in this chapter provides demographic information, including the percentage of populations considered that are minority populations or low-income populations, for each of the Build Alternatives. Where the population density is low, census block groups are larger. Within the RSA, several block groups are large and can extend for miles beyond the Build Alternatives’ footprints (e.g., within the Angeles National Forest [ANF] including the San Gabriel Mountains National Monument [SGMNM]).

As described further in Section 5.4.4.2, if the minority percentage of a census block group within the RSA exceeds the minority population percentage of the reference community (Los Angeles County; approximately 73 percent [U.S. Census 2015]), then the population of the census block group is considered to be an “EJ population” in this analysis. Low-income communities are considered to be EJ populations if the percentage of low-income households within a census block group exceeds the corresponding percentage for Los Angeles County (approximately 18

percent [U.S. Census 2015]), based on CEQ recommendations discussed further in Section 5.4.4.2.

Affected EJ populations within the RSA are in the cities of Palmdale and Burbank and the communities of Sylmar, Pacoima, Sun Valley, and Lake View Terrace. Because much of the Central Subsection traverses the ANF including the SGMNM, there is a low population density in the Central Subsection, and few EJ populations.

The cumulative RSA for EJ is defined as the entirety of Los Angeles County. The cumulative RSA for EJ is larger than the RSAs for direct and indirect effects on low-income populations and minority populations order to capture EJ effects associated with the construction and operations of the Build Alternatives as well as regional EJ effects associated with anticipated planned development.

5.4.2 Impact Avoidance and Minimization Features

IAMFs are project features the Authority has incorporated into each of the six Build Alternatives for purposes of the environmental impact analysis. The full text of the IAMFs that are applicable to the Palmdale to Burbank Project Section is provided in Volume 2, Appendix 2-E, Impact Avoidance and Minimization Features.

The following IAMFs were incorporated into the EJ analysis¹:

- **TR-IAMF#1:** Protection of Public Roadways during Construction
- **TR-IAMF#2:** Construction Transportation Plan
- **TR-IAMF#3:** Off-Street Parking for Construction-Related Vehicles
- **TR-IAMF#4:** Maintenance of Pedestrian Access
- **TR-IAMF#5:** Maintenance of Bicycle Access
- **TR-IAMF#6:** Restriction on Construction Hours
- **TR-IAMF#7:** Construction Truck Routes
- **TR-IAMF#8:** Construction during Special Events
- **TR-IAMF#9:** Protection of Freight and Passenger Rail during Construction
- **TR-IAMF#11:** Maintenance of Transit Access
- **TR-IAMF#12:** Pedestrian and Bicycle Safety
- **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
- **AQ-IAMF#6:** Reduce the Potential Impact of Concrete Batch Plants
- **N&V-IAMF#1:** Noise and Vibration
- **EMI/EMF-IAMF#1:** Preventing Interference with Adjacent Railroads
- **EMI/EMF-IAMF#2:** Controlling Electromagnetic Fields/electromagnetic Interference
- **HYD-IAMF#1:** Storm and Groundwater Management
- **HYD-IAMF#2:** Flood Protection
- **HYD-IAMF#3:** Prepare and Implement a Construction Stormwater Pollution Prevention Plan
- **HYD-IAMF#4:** Prepare and Implement an Industrial Stormwater Pollution Prevention Plan
- **HYD-IAMF#5:** Tunnel Boring Machine and Design Features
- **HYD-IAMF#6:** Tunnel Lining System
- **HYD-IAMF#7:** Grouting
- **HMW-IAMF#1:** Property Acquisition Phase I and II Environmental Site Assessments, Additional Preconstruction Investigations, and Associated Actions to Control Site Contamination

¹ As discussed in Section 5.4.4.2, Data Collection and Analysis, not every section within Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures, is relevant to this EJ Analysis. The above list of IAMFs only includes those IAMFs included in the relevant sections listed in Section 5.4.4.2.

- **HMW-IAMF#2:** Landfill
- **HMW-IAMF#3:** Work and Vapor Barriers
- **HMW-IAMF#4:** Known, Suspected, and Unanticipated Environmental Contamination
- **HMW-IAMF#5:** Demolition Plans
- **HMW-IAMF#6:** Spill Prevention
- **HMW-IAMF#7:** Storage and Transport of Materials
- **HMW-IAMF#8:** Permit Conditions
- **HMW-IAMF#9:** Environmental Management System
- **HMW-IAMF#10:** Hazardous Materials Plans
- **HMW-IAMF#11:** Stakeholder Consultation for the San Fernando Valley Superfund Site Area 1
- **SS-IAMF#1:** Construction Safety Transportation Management Plan
- **SS-IAMF#2:** Safety and Security Management Plan
- **SS-IAMF#3:** Hazard Analyses
- **SS-IAMF#4:** Oil and Gas Wells
- **SS-IAMF#5:** Aviation Safety
- **SS-IAMF#6:** Stakeholder Coordination for the Hollywood Burbank Airport
- **SOCIO-IAMF#1:** Construction Management Plan
- **SOCIO-IAMF#2:** Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act
- **SOCIO-IAMF#3:** Relocation Mitigation Plan
- **PK-IAMF#1:** Parks, Recreation, and Open Space
- **AVQ-IAMF#1:** Aesthetic Options
- **AVQ-IAMF#2:** Aesthetic Review Process
- **CUL-IAMF#1:** Geospatial Data Layer and Archaeological Sensitivity Map
- **CUL-IAMF#2:** Worker Environmental Awareness Program Training Session
- **CUL-IAMF#3:** Pre-construction Cultural Resource Surveys
- **CUL-IAMF#5:** Archaeological Monitoring Plan and Implementation
- **CUL-IAMF#6:** Preconstruction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage
- **CUL-IAMF#7:** Built Environment Monitoring Plan
- **CUL-IAMF#8:** Implement Protection and/or Stabilization Measures

This EJ analysis considers these IAMFs as part of the project design. Within Section 5.7, Environmental Consequences, each narrative discussion describes how these project features are applicable and, where appropriate, effective at avoiding or minimizing impacts.

Effects on EJ populations would be reduced with implementation of the mitigation measures listed below and discussed in Section 3.2, Transportation; Section 3.3, Air Quality and Global Climate Change; Section 3.4, Noise and Vibration; Section 3.5, Electromagnetic Interference and Electromagnetic Fields; Section 3.8, Hydrology and Water Resources; Section 3.10, Hazardous Materials and Wastes; Section 3.11, Safety and Security; Section 3.12, Socioeconomics and Communities; Section 3.15, Parks, Recreation, and Open Space; Section 3.16, Aesthetics and Visual Quality; and Section 3.17, Cultural Resources.

5.4.3 Mitigation Measures

The mitigation measures outlined below will be applied to populations that are low-income, minority, or otherwise, based on the extent of the project effects.

- **TRA-MM#1:** Add Lanes to the Segment
- **TRA-MM#2:** Modify Signal Timing
- **TRA-MM#3:** Modify Signal Phasing
- **TRA-MM#4:** Provide a Traffic Signal
- **TRA-MM#5:** Restripe Intersection
- **TRA-MM#6:** Widen Intersection

- **TRA-MM#7:** Add Exclusive Turn Lanes
- **TRA-MM#8:** Reconfigure Intersection
- **TR-MM#10:** Provide Pedestrian and Bicycle Facilities
- **TR-MM#11:** In-Lieu Traffic and Parking Improvements
- **TR-MM#12:** Prepare a Transportation Construction Management Plan
- **AQ-MM#1:** Offset Project Construction Emissions through SCAQMD Emissions Offsets Programs
- **AQ-MM#2:** Offset Project Construction Emissions through AVAQMD Emissions Offsets Programs
- **AQ-MM#3:** Construction Emissions Reductions – Requirements for use of Zero Emission and/or Near Zero Emission Vehicles and Off-Road Equipment
- **N&V-MM#1:** Construction Noise Mitigation Measures
- **N&V-MM#2:** Construction Vibration Mitigation Measures
- **N&V-MM#3:** Implement Proposed California High-Speed Rail Project Noise Mitigation Guidelines
- **N&V-MM#4:** Vehicle Noise Specification
- **N&V-MM#5:** Special Track Work at Crossovers and Turnouts
- **N&V-MM#6:** Additional Noise Analysis Following Final Design
- **N&V-MM#7:** Implement Operation Vibration Mitigation Measures
- **EMI/EMF-MM#1:** Protect Sensitive Equipment
- **HWR-MM#1:** Minimize Construction-period Water Quality Impacts Associated with Tunnel Construction
- **HWR-MM#2:** Minimize Impacts Associated with Construction in Floodplains Due to Permanent Structures Located within the SFHAs During Construction
- **HWR-MM#3:** Compensation for Impacts on Hansen Spreading Grounds
- **HWR-MM#4:** Implement a Water Resources Adaptive Management and Monitoring Plan Including Compensatory Mitigation Measures as Necessary
- **HMW-MM#1:** Limit Handling of Extremely Hazardous Materials Near Educational Facilities
- **S&S-MM#1:** Monitor Response of Local Fire, Rescue, and Emergency Service Providers to Incidents at Stations and Provide a Fair Share Cost of Service
- **SO-MM#1:** Implement Measures to Reduce Impacts Associated with the Division of Residential Neighborhoods
- **SO-MM#2:** Implement Measures to Reduce Impacts Associated with the Division of Communities
- **SO-MM#3:** Implement Measures to Reduce Impacts Associated with the Relocation of Important Facilities
- **PR-MM#1:** Temporary Restricted Access to Park Facilities During Construction
- **PR-MM#2:** Providing Park Access
- **PR-MM#3:** Implement Standard Safety Measures
- **PR-MM#4:** Develop and Implement a Trail Facilities Plan
- **PR-MM#5:** Modifications to Recreational Uses
- **PR-MM#6:** Return of Land Used by Temporary Impact Areas to the Property Owners
- **PR-MM#7:** Permanent Easement from Parks, Recreation Resources, and/or Trails
- **PR-MM#8:** Permanent Changes to Access to Parks, Recreation Resources, and/or Trails
- **PR-MM#9:** Permanent Acquisition of Public Property from Land and/or Trails Planned for Public Recreational Use
- **AVQ-MM#1:** Minimize Visual Disruption from Construction Activities
- **AVQ-MM#2:** Minimize Light Disturbance during Construction
- **AVQ-MM#3:** Incorporate Design Criteria for Elevated Guideways and Station Elements that can Adapt to Local Context
- **AVQ-MM#4:** Provide Vegetation Screening Along At-Grade and Elevated Guideways Adjacent to Residential Areas
- **AVQ-MM#5:** Replant Unused Portions of Land Acquired for the HSR
- **AVQ-MM#6:** Screen Traction Power Supply Stations and Radio Communication Towers
- **CUL-MM#5:** Minimize Adverse Operational Noise Effects

5.4.4 Methods for Environmental Justice Impact Analysis

5.4.4.1 Overview

The methodology used to identify low-income populations and minority populations incorporates guidance from the CEQ, an agency that has oversight of the federal government’s compliance with USEO 12898 and NEPA (CEQ 1997). Although low-income and minority populations are distinguished for transparency and disclosure purposes, low-income and minority populations are both considered EJ populations for purposes of environmental justice analysis under NEPA.

The presence of low-income populations and minority populations was determined by an evaluation of U.S. Census data. This EJ analysis includes 2010 U.S. Census data, and ACS 2010–2014 data for the Central and Burbank Subsections.² The ACS is an ongoing U.S. Census survey sent to a sample of the population. Data were collected at the county, city, and census block group levels. Section 5.4.4.2 further details the methodology used to identify EJ populations within the RSA. During preparation of the Final EIR/EIS, the Authority reviewed more recent census data (U.S. Census 2021) and concluded that the population and population characteristics in the RSA, including census block group boundaries and low-income and minority populations, have not changed substantially,³ such that any of the EJ impact conclusions would be affected.

In accordance with USDOT Order 5610.2C, if adverse effects would predominantly affect EJ populations (i.e., substantially more than non-EJ populations), and/or adverse effects experienced by EJ populations would be more severe than those experienced by non-EJ populations, the effect would be considered disproportionately high and adverse for EJ populations. Section 5.4.4.2 further details the methodology used to determine if adverse effects would disproportionately affect EJ populations.

5.4.4.2 Data Collection and Analysis

The following steps were taken to evaluate whether or not effects would be borne disproportionately by EJ communities.

Step 1: Identification of Environmental Justice Populations

The CEQ guidance recommends identifying minority populations where either (1) the minority population of the affected area exceeds 50 percent, or (2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). For this EJ analysis, minority populations of a census block group within the RSA were compared to the minority population percentage of Los Angeles County (approximately 73 percent).⁴ Census block groups that exceeded the Los Angeles County average were identified as EJ communities. Although the official definition of low-income in USEO 12898 is based on the Department of Health and Human Services’ poverty guidelines, due to limitations, the CEQ guidance recommends identifying low-income populations in an affected area by applying the annual statistical poverty thresholds from the U.S. Census Current Population Reports, Series P-60 on Income and Poverty.⁵ These reports

² The 2010 Census and ACS 2010-2014 data were the best available data at the time of this analysis for the baseline year of 2015.

³ In this context, “substantially” refers to a deviation of the population and population characteristics in the RSA that is greater than 5 percent. Between publication of the 2010-2014 ACS and 2017-2021 ACS, the geographic delineation of Census block groups has changed; however, the following characteristics in the EJ RSA have changed by less than 5 percent: total population, minority populations percentage, and low-income household percentage (U.S. Census 2015, 2021).

⁴ This analysis uses the minority percentage of Los Angeles County (72.873 percent) rather than an arbitrary 50 percent threshold to better account for the diverse nature of the local population.

⁵ The official U.S. poverty measure is a measurement of cash resources that assumes all people living together who are related by birth, marriage, or adoption share an income. This poverty measure assumes that food costs for a household amount to three times the cost of 1963 food prices, and it does not take into account geographic variations in cost of living in the United States (U.S. Census 2017).

provide statistics on a statewide level, but do not provide county-level statistics. Therefore, block groups with low-income populations that exceeded the Los Angeles County average low-income population (approximately 18 percent) were identified as EJ populations.

The following definitions were used in assessing whether the Build Alternatives would result in disproportionately high and adverse effects on low-income populations and minority populations and whether those alternatives would result in benefits for those populations:

Minority Populations

The term *minority* includes the following racial and ethnic groups:

- **Black or African American**—A person having origins in any of the black racial groups of Africa.
- **American Indian or Alaska Native**—A person having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment.
- **Native Hawaiian or other Pacific Islander**—A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. This includes people who indicate their race as Native Hawaiian, Guamanian or Chamorro, Samoan, or Other Pacific Islander.
- **Asian**—A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This includes Asian Indian, Chinese, Filipino, Korean, Japanese, Vietnamese, and Other Asian.
- **Hispanic or Latino**—Considered an ethnicity, not a race. Hispanic and Latino persons may be of any race. All people who identify themselves as Hispanic are considered a minority, independent of their race. Those in this category have indicated that they are Mexican, Puerto Rican, or Cuban, along with those who have indicated that they are other Spanish, Hispanic, or Latino.

Other Underserved Populations

This analysis studies whether effects on minority and/or low-income populations are disproportionate. The following populations are also discussed and considered in a supplementary manner for context:

Elderly Populations—For purposes of this document, the term elderly refers to individuals who are 65 years of age or older.

Limited English Proficiency Populations—It is the policy of the Authority to communicate effectively and provide meaningful access to limited English proficiency (LEP) individuals on all of the Authority’s programs, services and activities (see Section 5.2.2, above). Individuals who are considered to have LEP are those over 5 years old who have a limited ability to read, write, speak, or understand English. For the purposes of this document, LEP communities are considered to be those in which 5 percent or more of the population has limited ability to read, write, speak, or understand English.

Low-Income Populations

Low-income is defined as household income that is at or below the poverty threshold established by the U.S. Census. U.S. Census poverty thresholds vary by the size of the family unit, the number of related children under age 18, and the number of persons over the age of 65. For a four-person household with two related children, the poverty threshold is \$24,008 (year 2014 dollars). The United States Department of Health and Human Services provides poverty guidelines to determine eligibility for federal programs. For the low-income analysis, the Department of Health and Human Services recommends using U.S. Census poverty thresholds. No California-specific poverty guidelines or thresholds exist. The Department of Health and Human Services annually updates the federal poverty guideline in the *Federal Register*. Households below the applicable threshold meet the minimum eligibility requirements for income-based programs and are considered low-income households.

For a comprehensive discussion on EJ populations, refer to the *Palmdale to Burbank Section : Community Impact Assessment* (Authority 2019a).

Step 2: Identification of Potential Adverse Effects on Environmental Justice Populations

The analysis conducted in Step 1 above identified the location of substantial low-income or minority populations (low-income or minority populations that are meaningfully greater than that in the general population in the reference community) in the EJ RSA. USEO 12898, the federal EJ policy, requires federal agencies to address the potential for their programs, policies, and activities to have disproportionately high and adverse human health and environmental effects on minority and/or low-income populations. USDOT Order 5610.2C on EJ defines a “disproportionately high and adverse effect on minority and/or low-income populations” to mean an adverse effect that is predominantly borne by a minority population and/or a low-income population, or will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

Analyses conducted by various resource specialists identified the project’s effects on environmental resources in the EJ RSA. Project effects for each resource area are summarized in the NEPA effects summary tables provided at the end of each resource section in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures.

While the effects for each resource area were identified by region, alternative alignment, and type of effect, the NEPA summary tables provided at the end of each resource section do not specifically identify adverse effects. Therefore, it was incumbent on EJ analysts and subject matter experts to carefully scrutinize those effects provided in each resource section, consider supplementary information provided by CEQA findings, and assess whether the effects may represent an adverse individual effect or cumulative effect on human health and the environment to EJ populations.

The analysis of the following resource topics either did not identify any adverse effects, or identified that the effects would be regional in nature such that neither EJ nor non-EJ communities would experience a disproportionately high and adverse effect; therefore, they are not discussed further in this chapter:

- Section 3.6, Public Utilities and Energy
- Section 3.7, Biological Resources and Wetlands
- Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources
- Section 3.13, Station Planning, Land Use, and Development
- Section 3.14, Agricultural Farmland and Forest Land
- Section 3.18, Regional Growth

The following resource sections were identified to have some potentially adverse effects on EJ communities and are therefore discussed in this chapter:

- Section 3.2, Transportation
- Section 3.3, Air Quality and Global Climate Change
- Section 3.4, Noise and Vibration
- Section 3.5, Electromagnetic Interference and Electromagnetic Fields
- Section 3.8, Hydrology and Water Resources
- Section 3.10, Hazardous Materials and Wastes
- Section 3.11, Safety and Security
- Section 3.12, Socioeconomics and Communities
- Section 3.15, Parks, Recreation, and Open Space
- Section 3.16, Aesthetics and Visual Quality
- Section 3.17, Cultural Resources
- Section 3.19, Cumulative Impacts

Findings relevant to EJ communities were reviewed and summarized in Section 5.7, Environmental Consequences. Implementation of IAMFs, mitigation measures, and the offsetting value of generalized project benefits (e.g., proximity and access to stations, employment

opportunities before and after construction, and property and sales tax revenue changes) were evaluated to determine whether an adverse effect would remain.

The evaluation of potential community improvements included the following processes aimed at identifying community improvements to offset residual disproportionately high and adverse effects:

- Community outreach from February 2015 through release of the Draft EIR/EIS in December 2022.
- Additional community outreach following public review of the Draft EIR/EIS in November and December 2023.
- Determination of potential offsetting mitigation measures (OMMs) for different project alternatives following additional outreach activities summarized above.
- Identification of the potential for secondary physical effects on the environment due to implementation of potential community improvements throughout the development of Final EIR/EIS.

This process is described in greater detail in Appendix 5-B: Environmental Justice Development of Community Improvements as Offsetting Mitigation.

Where effects were found not to be adverse—or where no effect was determined—after consideration of IAMFs, mitigations, and project benefits, no further analysis was conducted on the potential to affect low-income and/or minority populations. Adverse effects were further analyzed as described under Step 3.

Step 3: Identification of Disproportionately High and Adverse Effects on Environmental Justice Populations

Adverse effects on substantial low-income or minority populations were further analyzed to determine whether they would disproportionately affect such populations. This analysis involved determining whether adverse effects, remaining after mitigation, occurred predominantly in areas with substantial minority populations and low-income populations, or if the adverse effects were appreciably more severe or greater in magnitude in areas with substantial minority and/or low-income populations. An adverse effect was determined to be disproportionate based on the “totality of the circumstances” and after considering “whether the adverse effects on EJ populations exceed those borne by non-EJ populations.” USDOT EJ policy guidance (FTA 2012).

Determining whether an adverse effect may be potentially disproportionately high and adverse requires comparing the effects on minority communities against the effects on non-minority communities or comparing the effects on low-income communities against the effects on non-low-income communities. (“The two terms “minority” and “low-income” should not be presumptively combined.” FTA Environmental Justice Circular 4703.1 [2012]) When a project’s adverse impacts affect a greater proportion of the identified minority or low-income communities than found in the reference community, those effects are determined to be potentially disproportionately high and adverse. (FTA Circular 4702.1B [October 2012], Chapter IV-11, stating that an acceptable measure of disproportionate burden or disparate impact is whether the EJ community is impacted more than their representative share in the overall population/reference community). For some resource areas, this analysis is quantitative, where effects and measures are reasonably known and detailed. In other cases, the disproportionate assessments are qualitative. This may be the case where the underlying resource area effects are not assessed quantitatively or where it may be premature or misleading for quantitative determinations (for example, where the mitigations are determined in the future and their effectiveness cannot now be evaluated). Input received from potentially affected minority or low-income communities on primary concerns is also considered in this qualitative assessment.

USDOT environmental justice guidance states that “determinations of disproportionately high and adverse effects include taking into consideration mitigation and enhancements measures that will be taken and all offsetting benefits to the affected minority and low-income populations...as well as the design, comparative impacts, and the relevant number of similar existing system elements

in nonminority and non-low-income areas.” (FTA Circular 4703.1 [August 2012]) Consistent with federal guidance and before a final determination on whether an effect is disproportionate, the Authority then assesses measures to mitigate, enhancements to offset, or offsetting project benefits. The Authority outreaches directly to the potentially affected EJ communities on potential measures, enhancements, or offsetting benefits. The Authority also comprehensively reviews measures offered elsewhere in the project section or systemwide for additional measures. If measures are practicable, the Authority proposes adoption of these measures to mitigate or offset a potential disproportionately high and adverse effect.

The analysis described above is conducted in Section 5.6. A summary of adverse effects identified in Chapter 3 of this Final EIR/EIS is provided in Section 5.6 and an analysis of the type of effects and disproportionately high and adverse effects is provided in Section 5.7.4. A determination regarding whether the Build Alternatives would result in disproportionately high and adverse effects, after application of measures to mitigate or offset and after consideration of input from EJ communities, on EJ communities is provided in Section 5.9.3.

Step 4: Engagement with Environmental Justice Populations

USEO 12898 requires that federal agencies ensure effective public participation and access to information. Consequently, a key component of compliance with USEO 12898 is outreach to the potentially affected minority and/or low-income populations to discover issues of importance that may not be captured by an analysis of publicly accessible data alone. Outreach to affected communities has been and will continue to be conducted as part of the Authority decision-making processes. An extensive public and agency outreach program will continue throughout the EIR/EIS process and the design and construction phases. As detailed in Section 5.5, Environmental Justice Engagement, and Chapter 9, Public and Agency Involvement, the Authority conducted meetings with local officials; public, local, and regional organizations; government agencies; and other interested parties and stakeholders. Meetings were also held with representatives of affected communities along the footprint of the Build Alternatives, including those communities containing predominantly minority and/or low-income populations. In addition to weighing the potential for disproportionately high and adverse effects on EJ populations, the analysis considered the community perception of the project (see Section 5.8.3) and potential project benefits (see Section 5.8.4) to EJ populations.

5.5 Affected Environment

As described above, EJ populations within the RSA were identified by comparing the percentage of minority and/or low-income households within each block group to the percentage of minority and/or low-income households of the reference community (Los Angeles County). Since the percentage of Los Angeles County’s population that is low-income and/or minority is higher than that of the state of California, using Los Angeles County as the reference community (in place of the state as a whole) provides the appropriate regional context for discussing potential EJ effects. If the minority and/or low-income population percentages of a census block group within the RSA exceeded the minority and/or low-income population percentage of the reference community (Los Angeles County), then the population of the census block group was considered to be an EJ population. Accordingly, Table 5-2 provides a summary of demographics of the reference community (Los Angeles County). Section 5.5.1 through 5.5.4 detail the affected environment of all Build Alternative RSAs and include maps of the minority and/or low-income populations within the RSAs.

Table 5-2 Reference Community Demographics

Jurisdiction	Percentage of Total Population				
	EJ Populations			Other Considerations	
	Minority	Predominant Minority Demographic	Low-Income Households	LEP Households	Age 65 Years or Older
Los Angeles County	72.8	Hispanic/Latino	18.4	14.0	11.6

Source: U.S. Census, 2015

EJ = Environmental Justice; LEP = limited English proficiency

Table 5-2 also shows other types of disadvantaged populations, including LEP households and residents aged 65 or older. While USDOT Order 5610.2C only requires analysis of disproportionately high and adverse effects on minority and low-income populations, the Authority considered LEP household and residents aged 65 and older when developing the *Palmdale to Burbank Project Section: Environmental Justice Outreach Plan* (Appendix 5-A), in compliance with Title VI and the Authority's LEP Policy (Authority 2012b). Therefore, these communities are described here only to contextualize the Authority's outreach efforts.

In the cities of Los Angeles and San Fernando, there are larger populations of LEP households than in Los Angeles County. Compared to Los Angeles County, only the city of Burbank has a greater percentage of residents that are age 65 years or older. None of the cities considered in this EJ analysis have an unemployment rate exceeding that of Los Angeles County.

Table 5-3 provides an overview of demographic data by subsection for each Build Alternative by jurisdiction for further context.

Table 5-3 Demographics by Build Alternative

Subsection / Area	Population (2010–2014 Estimate)	Percentage of Total Population			
		Populations Considered in EJ Analysis		Other Considerations	
		Minority	Low-Income Households	LEP Households	Age 65 Years or Older
Reference Community for EJ Determination					
Los Angeles County	9,974,203	72.8	18.4	14.0	11.6
Refined SR14					
Central	148,711	80.4	16.9	13.7	9.5
Burbank	8,896	46.7	7.5	9	13.2
SR14A					
Same as Refined SR14					
E1					
Central	131,838	81.7	16.9	13.7	9.3
Burbank	8,896	46.7	7.5	9	13.2

Subsection / Area	Population (2010–2014 Estimate)	Percentage of Total Population			
		Populations Considered in EJ Analysis		Other Considerations	
		Minority	Low-Income Households	LEP Households	Age 65 Years or Older
E1A					
Same as E1					
E2					
Central	55,704	60.4	15.5	13.7	12.3
Burbank	8,896	46.7	7.5	9	13.2
E2A					
Same as E2					

Source: U.S. Census 2015
 EJ = Environmental Justice; LEP = limited English proficiency

5.5.1 Refined SR14 Build Alternative

5.5.1.1 Minority Populations

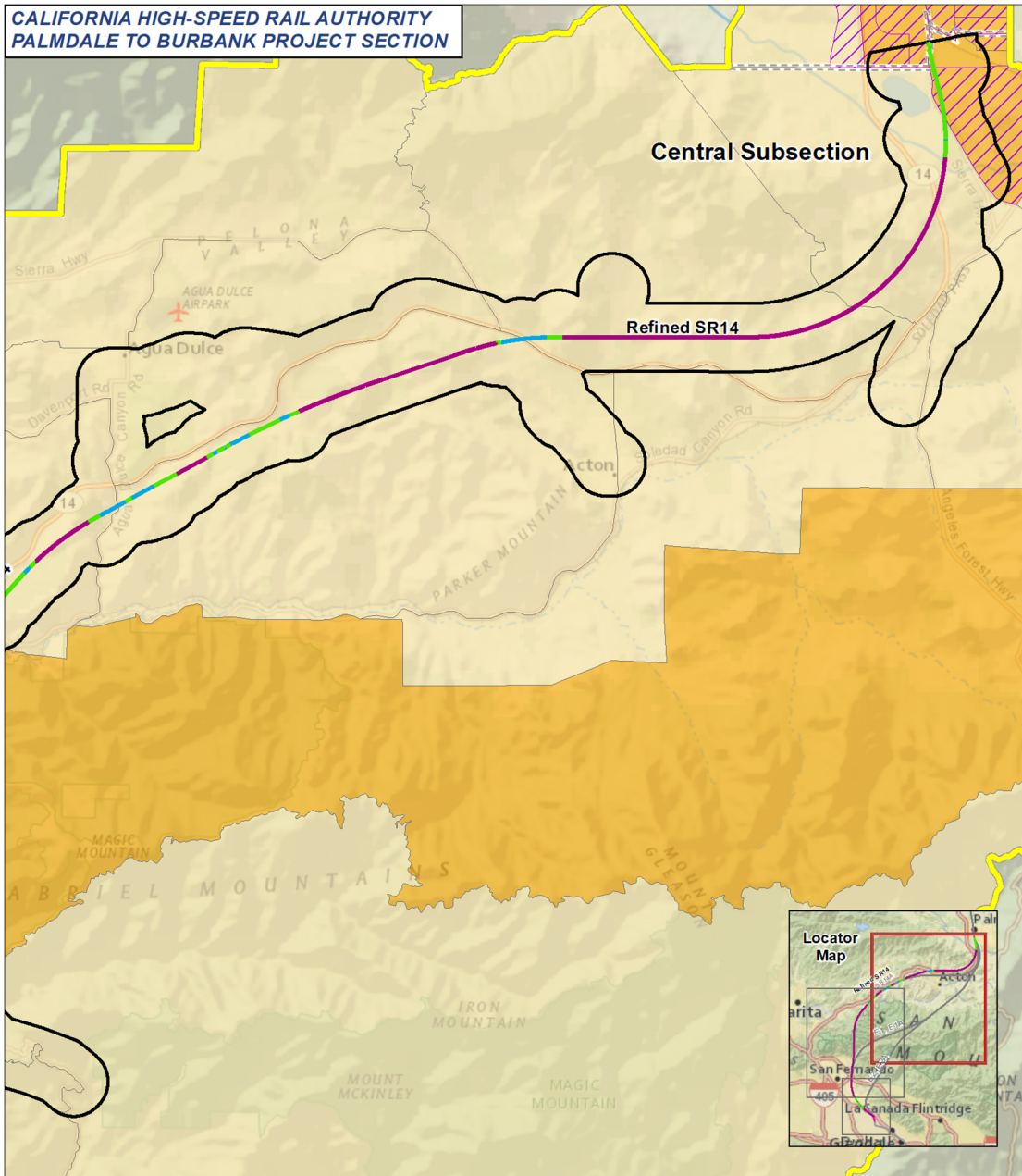
Figure 5-1 through Figure 5-3 show the distribution of minority population percentage by census block group in the Refined SR14 Build Alternative RSA. As shown in these figures, there are block groups designated as EJ populations based on minority percentage directly south of Palmdale, which includes the Boulders at the Lake Mobile Home Park east of the alignment. Block groups within the portion of the Central Subsection that pass near Agua Dulce and the ANF are not EJ populations based on minority percentage. However, many of the block groups in the San Fernando Valley portion of the Central Subsection within the Sylmar, Pacoima, and Sun Valley neighborhoods of the city of Los Angeles are EJ populations based on minority percentages. These neighborhoods are heavily urbanized areas featuring dense neighborhoods and a large population that identifies as Hispanic/Latino.

Minority EJ populations in the Burbank Subsection are generally near the Hollywood Burbank Airport. The Burbank Airport Station would be built within EJ block groups. Similar to the city of Los Angeles neighborhoods described above, the Burbank Subsection has a substantial population of residents that identify as Hispanic/Latino.

5.5.1.2 Low-Income Populations

Figure 5-1 through Figure 5-3 show the distribution of low-income population percentage by census block group in the Refined SR14 Build Alternative RSA. As shown in Figure 5-1, the block groups directly south of Palmdale are designated as EJ populations based on low-income percentage, which includes the Boulders at the Lake Mobile Home Park. Within the Central Subsection near Agua Dulce are not EJ communities based on low-income percentage. One large block group near the Antelope Valley Freeway, extending to the San Gabriel Mountains, is a low-income EJ community; however, the area where the Refined SR14 Build Alternative alignment would traverse is mostly uninhabited. The Central Subsection of this RSA also traverses the San Fernando Valley where block groups have a higher percentage of low-income households compared to the county average. These communities are within the urbanized Los Angeles neighborhoods of Pacoima and Sun Valley.

There are no low-income EJ block groups within the Refined SR14 Burbank Subsection RSA, which is true for all Build Alternatives.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

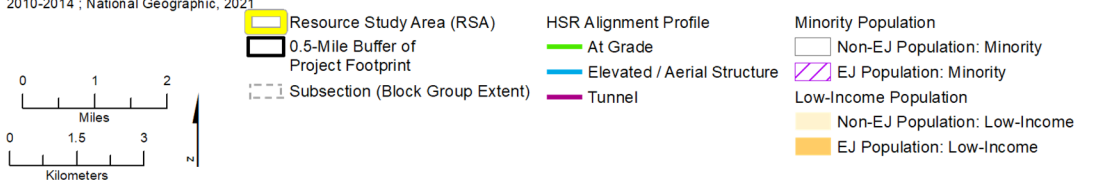


Figure 5-1 Refined SR14 Minority and/or Low-Income Populations (Map 1 of 3)

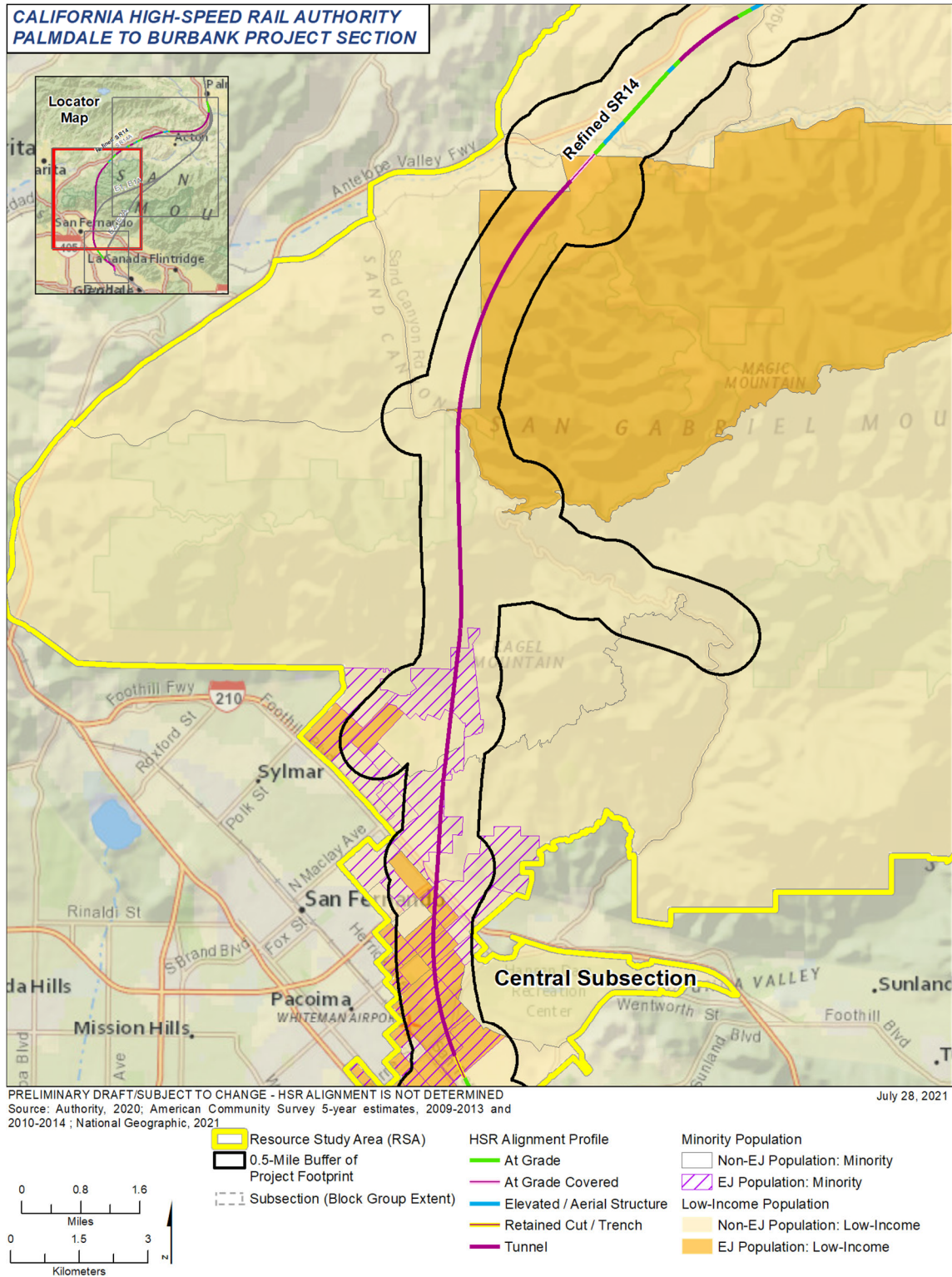


Figure 5-2 Refined SR14 Minority and/or Low-Income Populations (Map 2 of 3)

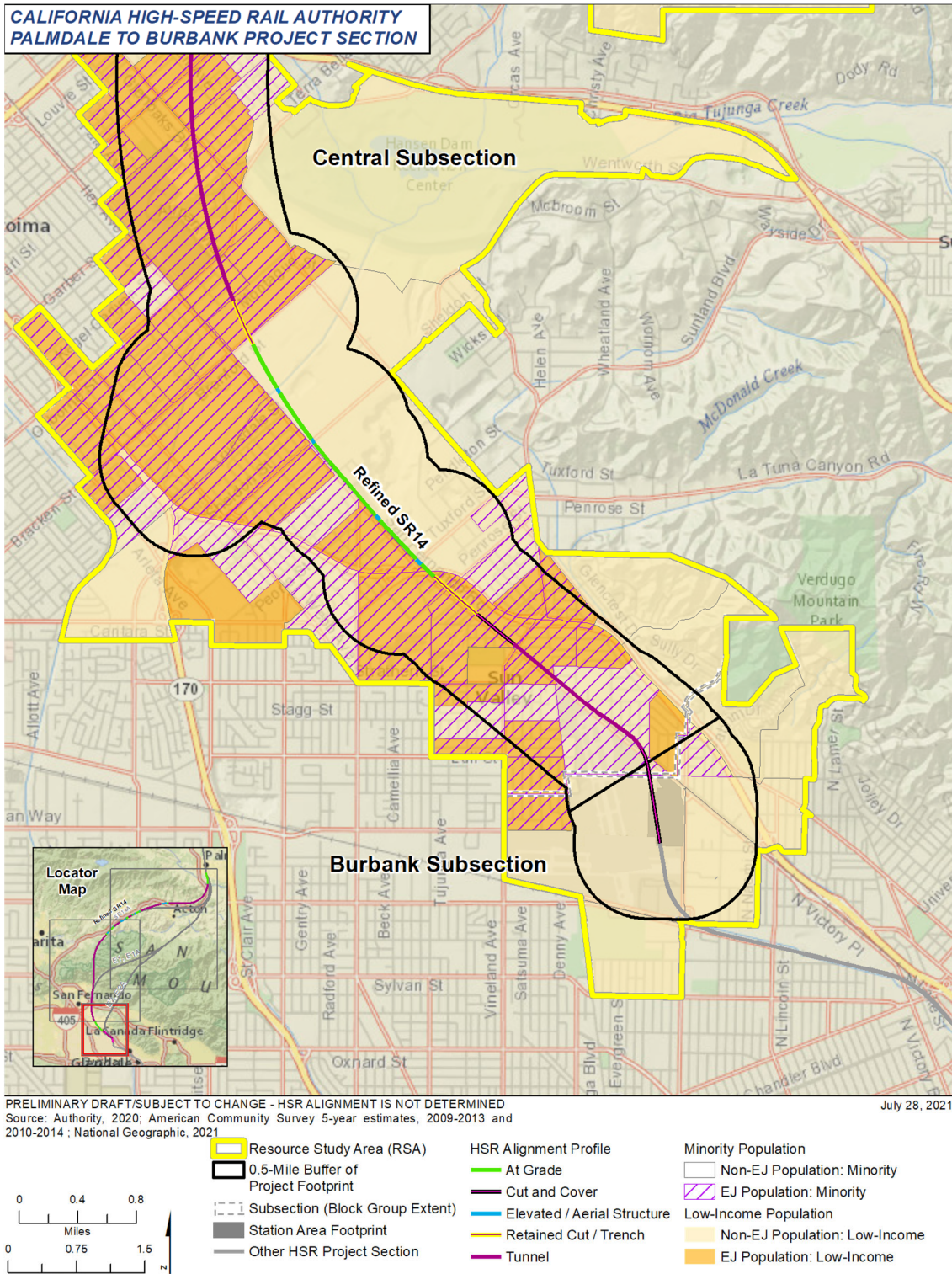
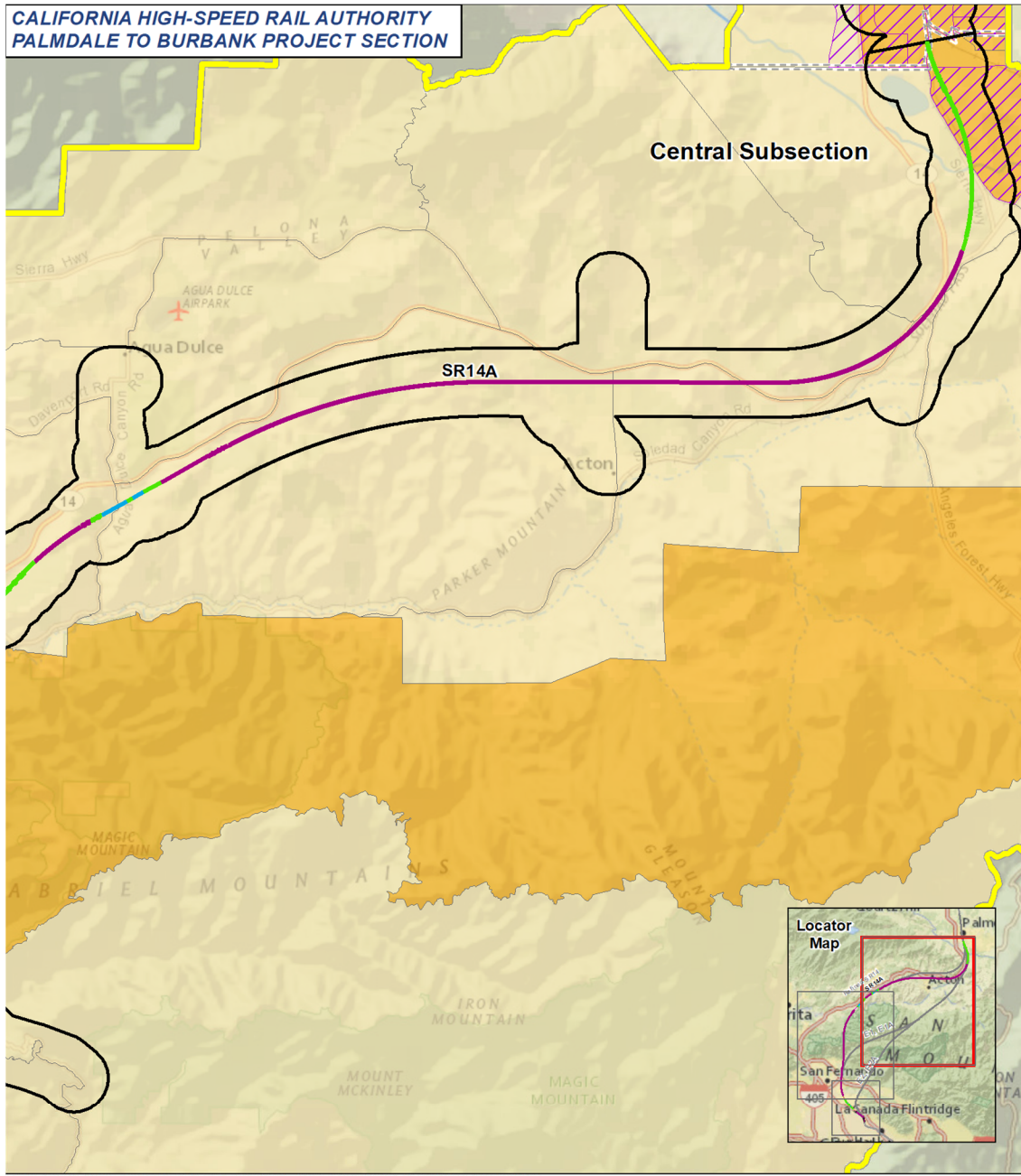


Figure 5-3 Refined SR14 Minority and/or Low-Income Populations (Map 3 of 3)

5.5.2 SR14A Build Alternative

As shown in Figure 5-4 through Figure 5-6, the SR14A Build Alternative RSA comprises the same census block groups as the Refined SR14 Build Alternative RSA. Therefore, in terms of EJ populations, the SR14A Build Alternative RSA is identical to the Refined SR14 Build Alternative RSA despite differences in alignment near Una Lake.



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

Resource Study Area (RSA)	HSR Alignment Profile - At Grade	Minority Population - Non-EJ Population: Minority
0.5-Mile Buffer of Project Footprint	Elevated / Aerial Structure	EJ Population: Minority
Subsection (Block Group Extent)	Tunnel	Low-Income Population - Non-EJ Population: Low-Income
		EJ Population: Low-Income

Figure 5-4 SR14A Minority and/or Low-Income Populations (Map 1 of 3)

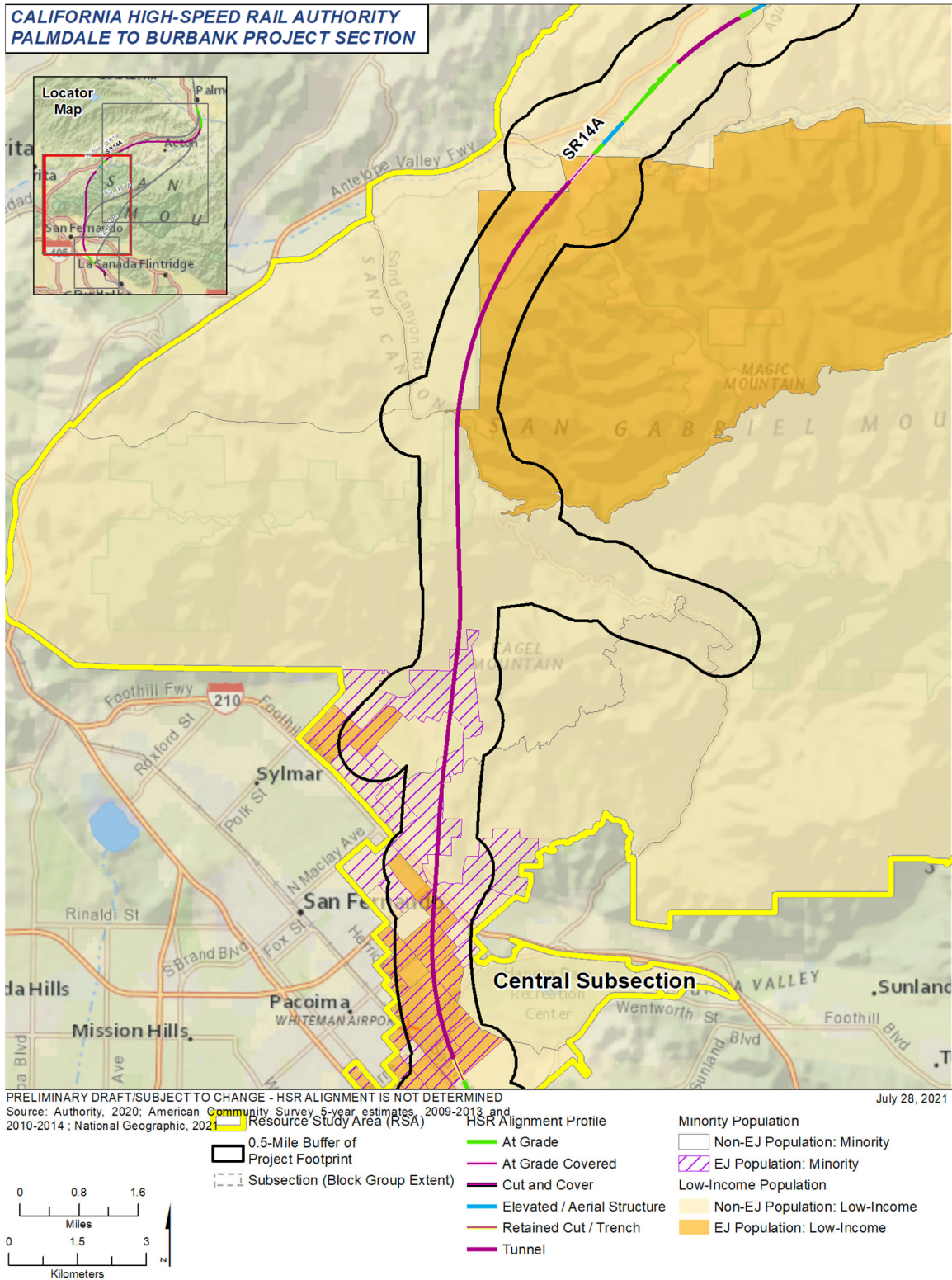
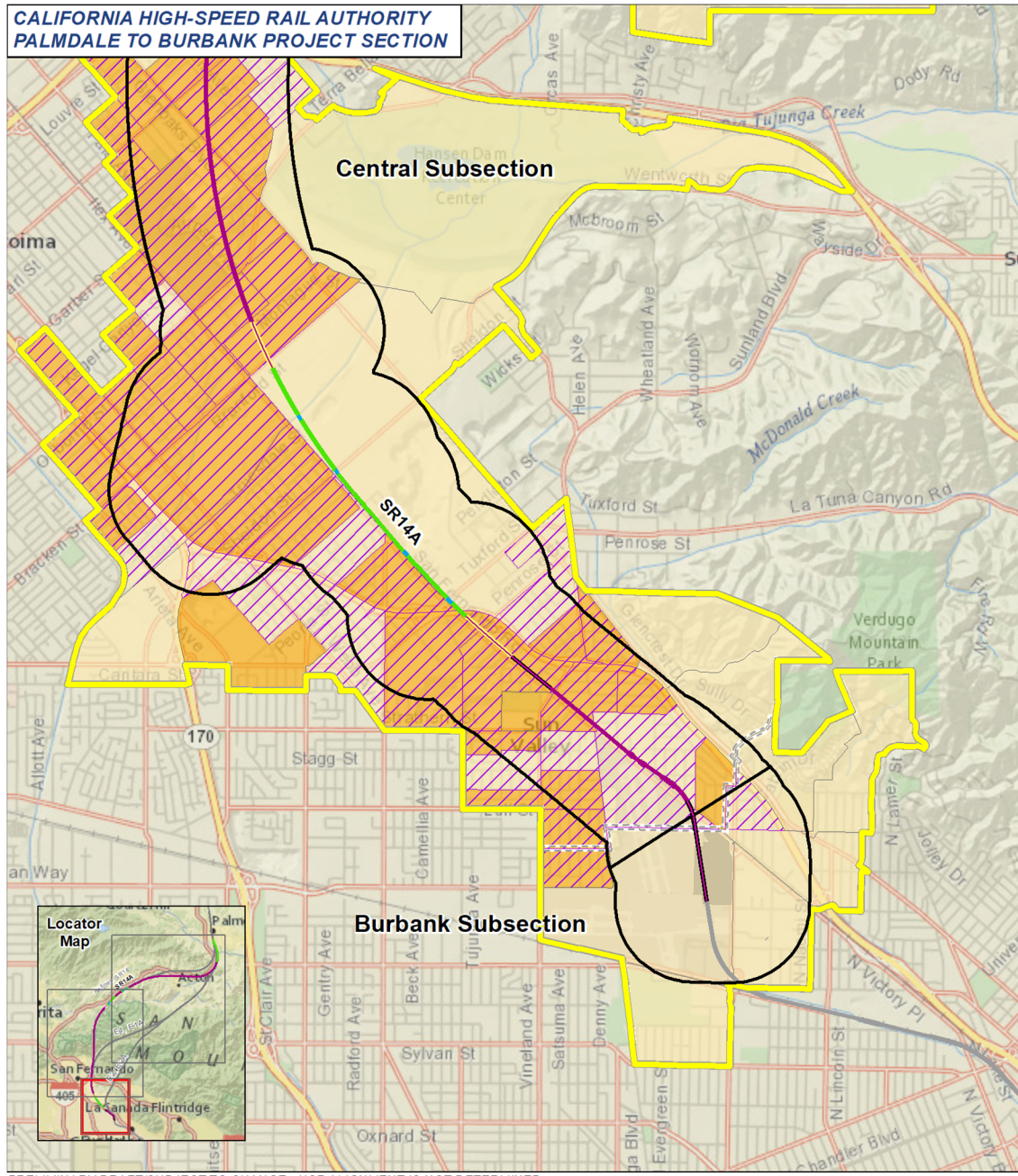


Figure 5-5 SR14A Minority and/or Low-Income Populations (Map 2 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

Resource Study Area (RSA)	HSR Alignment Profile At Grade	Minority Population Non-EJ Population: Minority
0.5-Mile Buffer of Project Footprint	Cut and Cover	EJ Population: Minority
Subsection (Block Group Extent)	Elevated / Aerial Structure	Low-Income Population Non-EJ Population: Low-Income
Station Area Footprint	Retained Cut / Trench	EJ Population: Low-Income
Other HSR Project Section	Tunnel	

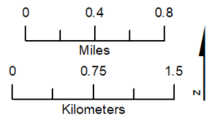


Figure 5-6 SR14A Minority and/or Low-Income Populations (Map 3 of 3)

5.5.3 E1 Build Alternative

5.5.3.1 *Minority Populations*

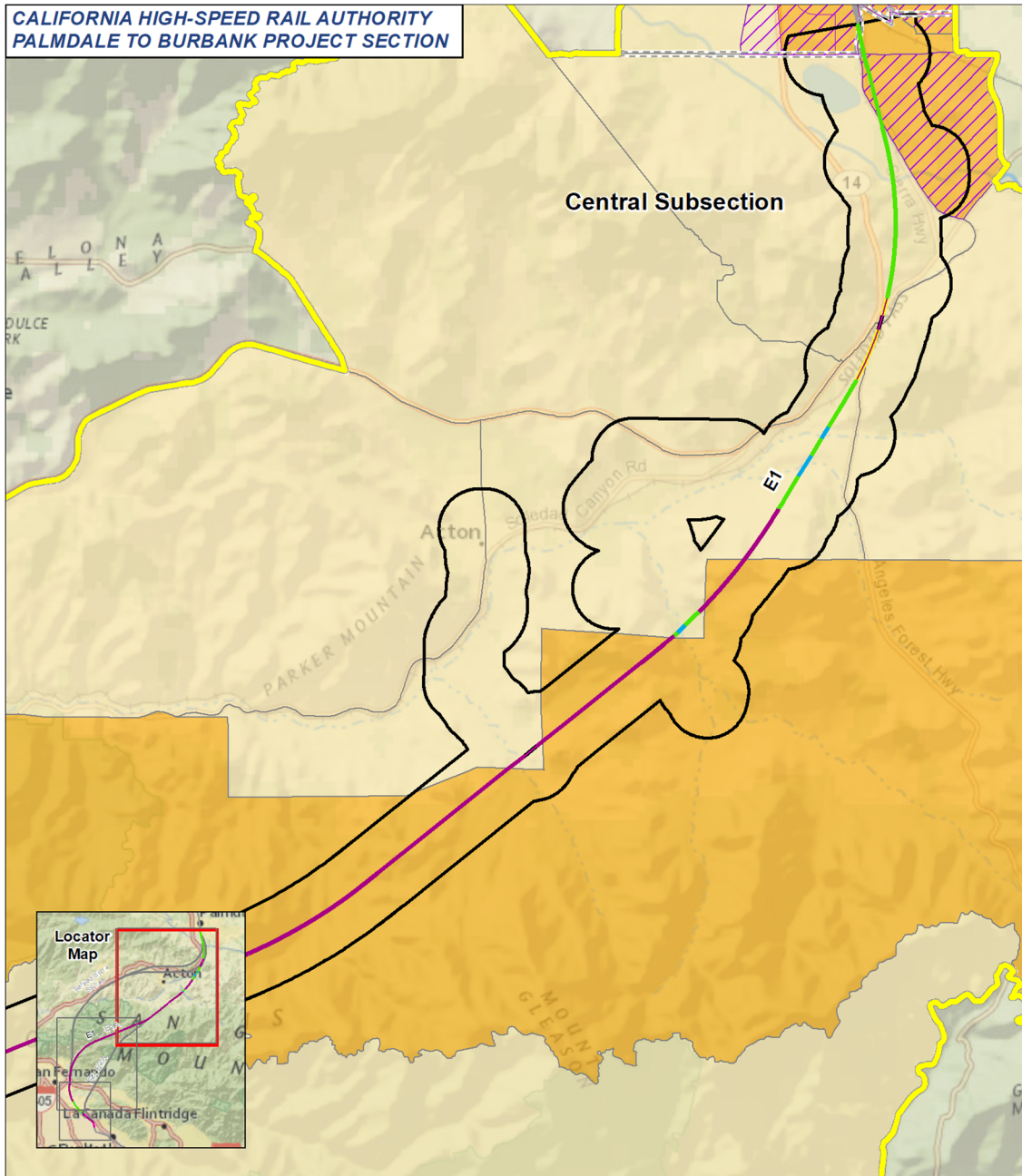
Figure 5-7 through Figure 5-9 show the minority populations by census block group in the E1 Build Alternative RSA. There are block groups designated as EJ populations based on minority percentage directly south of Palmdale, which includes the Boulders at the Lake Mobile Home Park east of the alignment. The block groups within the portion of the Central Subsection that pass through the ANF, including SGMNM, are not minority EJ populations. However, the Central Subsection overlaps many minority EJ block groups in the San Fernando Valley within the Sylmar, Pacoima, and Sun Valley neighborhoods. These neighborhoods, which feature large populations that identify as Hispanic, are more densely developed than the unincorporated portions of the Central Subsection.

The census block groups overlapping the E1 Build Alternative Burbank Subsection would be identical to those discussed for the Refined SR14 Build Alternative RSA (refer to Section 5.5.1, Refined SR14 Build Alternative).

5.5.3.2 *Low-Income Populations*

Figure 5-7 through Figure 5-9 show the census block groups in the E1 Build Alternative RSA where the percentage of low-income households is greater than the average for Los Angeles County. As shown in Figure 5-7, the block groups directly south of Palmdale are designated as EJ populations based on low-income percentage, which includes the Boulders at the Lake Mobile Home Park. Similar to the Refined SR14 Build Alternative, the E1 Central Subsection RSA traverses a corridor of communities in the San Fernando Valley where census block groups have a percentage of low-income households that is higher than the county average, largely in the neighborhoods of Pacoima and Sun Valley. As with the Refined SR14 Build Alternative, the large census block group in the San Gabriel Mountains that is identified as a low-income EJ population remains largely uninhabited.

The census block groups overlapping the E1 Build Alternative Burbank Subsection would be identical to those discussed for the Refined SR14 Build Alternative (refer to Section 5.5.1, Refined SR14 Build Alternative).



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

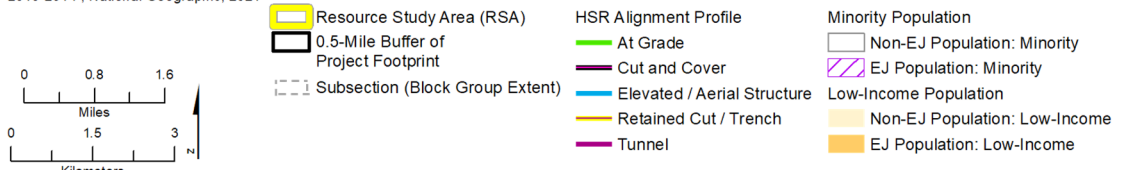
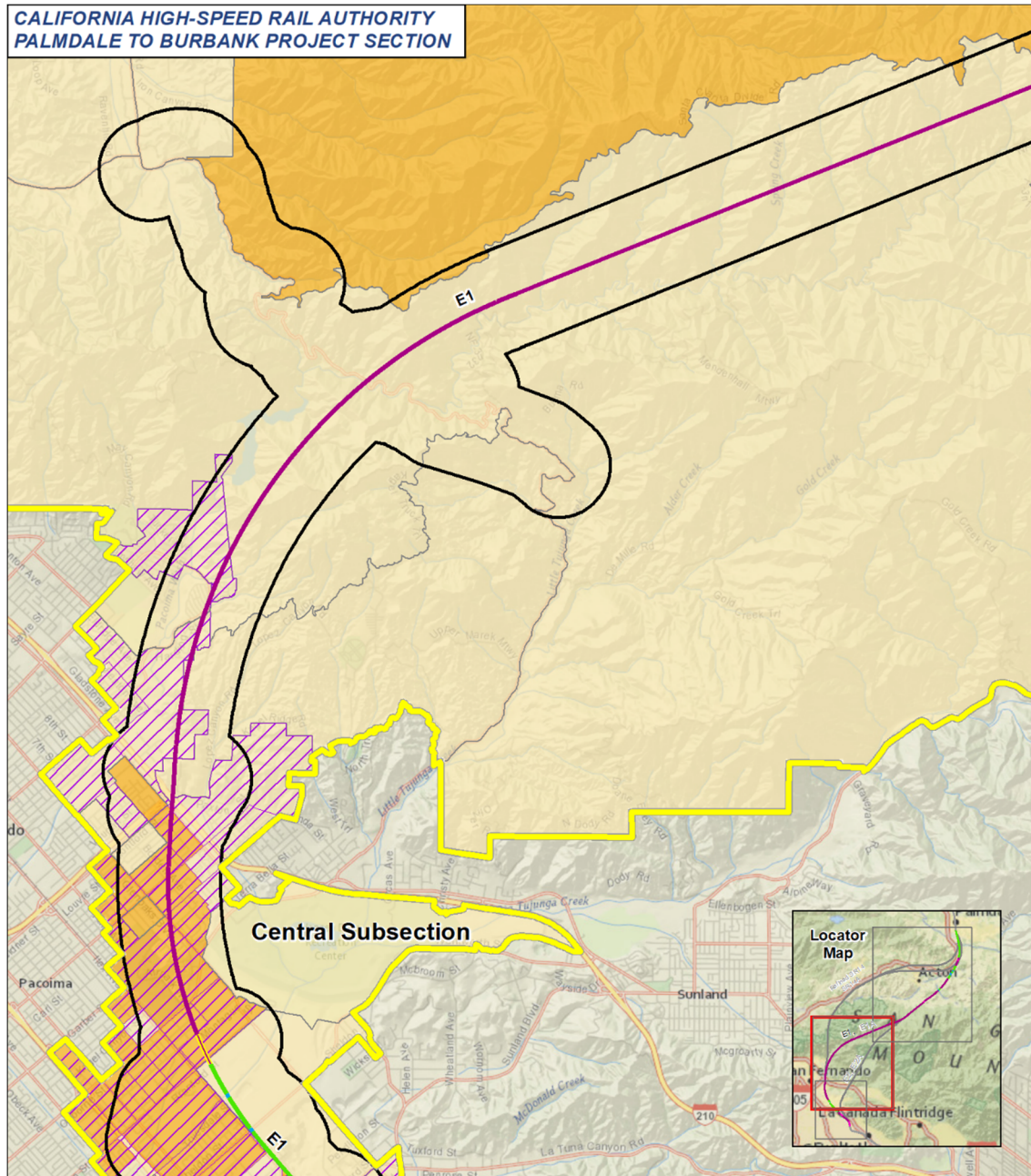


Figure 5-7 E1 Minority and/or Low-Income Populations (Map 1 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

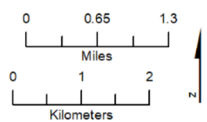
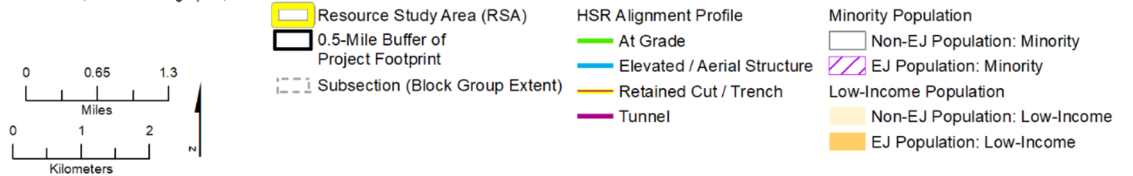
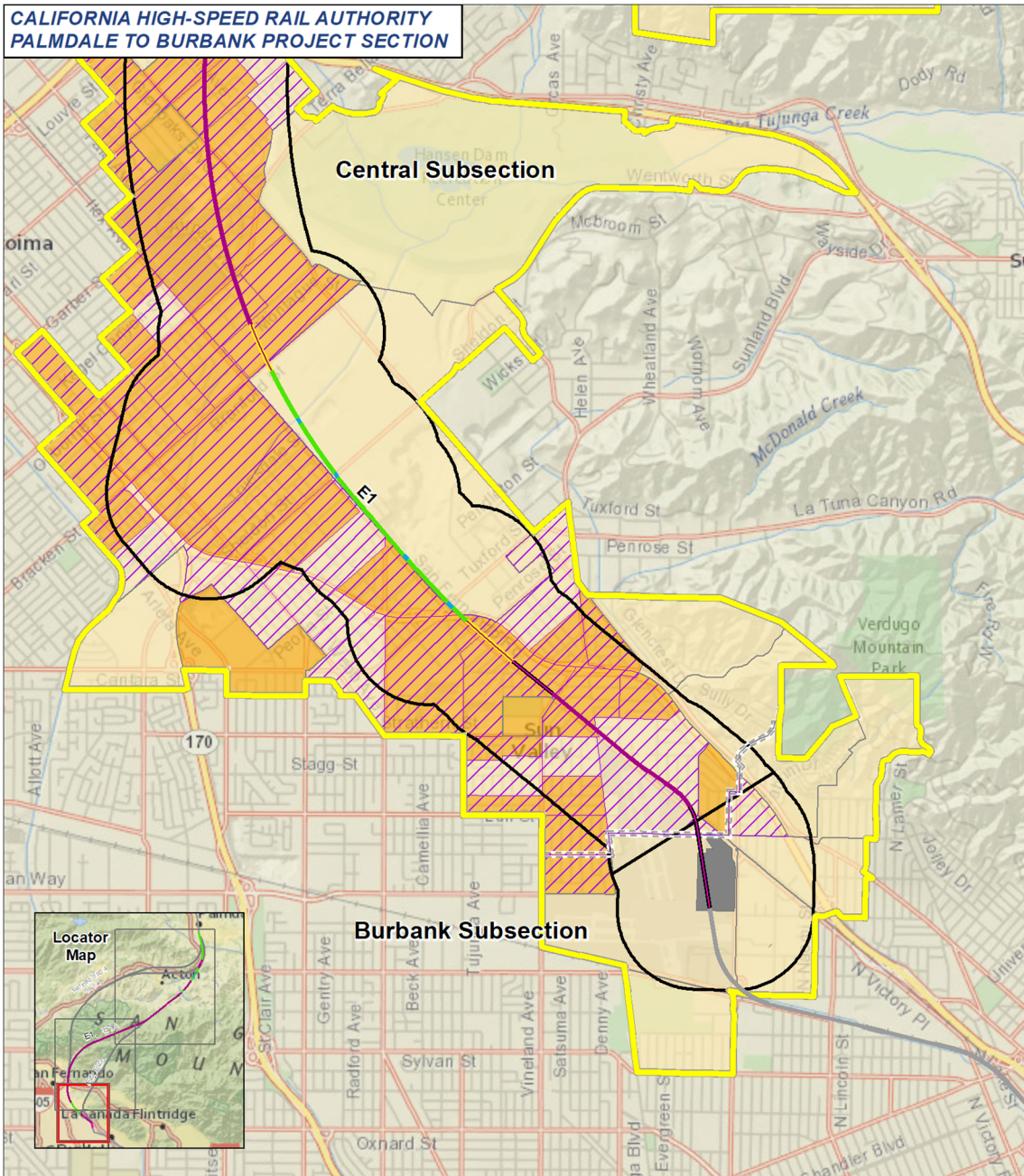


Figure 5-8 E1 Minority and/or Low-Income Populations (Map 2 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

Resource Study Area (RSA)	HSR Alignment Profile At Grade	Minority Population Non-EJ Population: Minority
0.5-Mile Buffer of Project Footprint	Cut and Cover	EJ Population: Minority
Subsection (Block Group Extent)	Elevated / Aerial Structure	Low-Income Population Non-EJ Population: Low-Income
Station Area Footprint	Retained Area Cut / Trench	EJ Population: Low-Income
Other HSR Project Section	Tunnel	

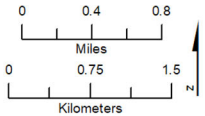


Figure 5-9 E1 Minority and/or Low-Income Populations (Map 3 of 3)

5.5.4 E1A Build Alternative

As shown in Figure 5-10 through Figure 5-12, the E1A Build Alternative RSA comprises the same census block groups as the E1 Build Alternative RSA. Therefore, in terms of EJ populations, the E1A Build Alternative RSA is identical to the E1 Build Alternative RSA despite differences in alignment near Una Lake.

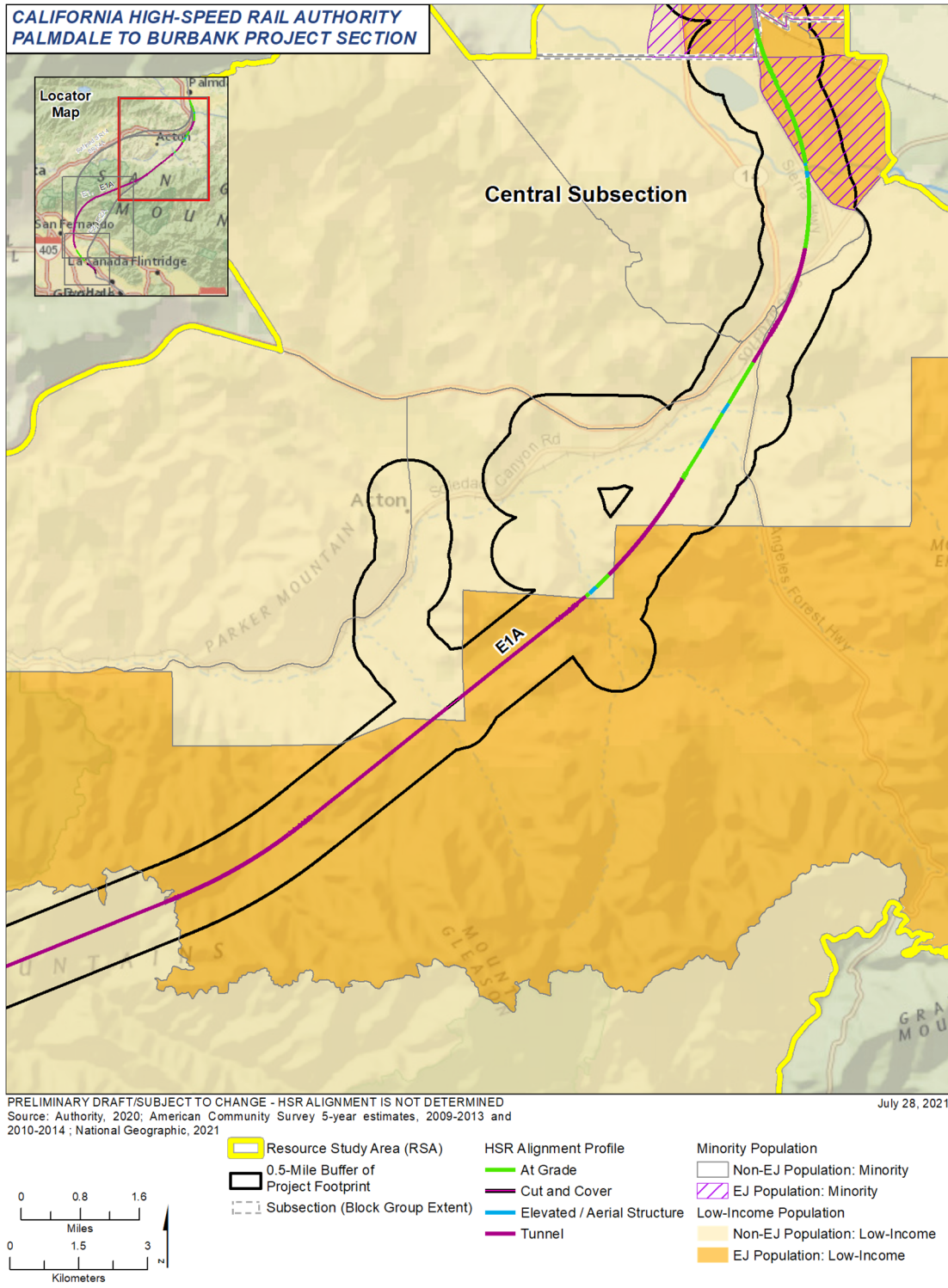


Figure 5-10 E1A Minority and/or Low-Income Populations (Map 1 of 3)

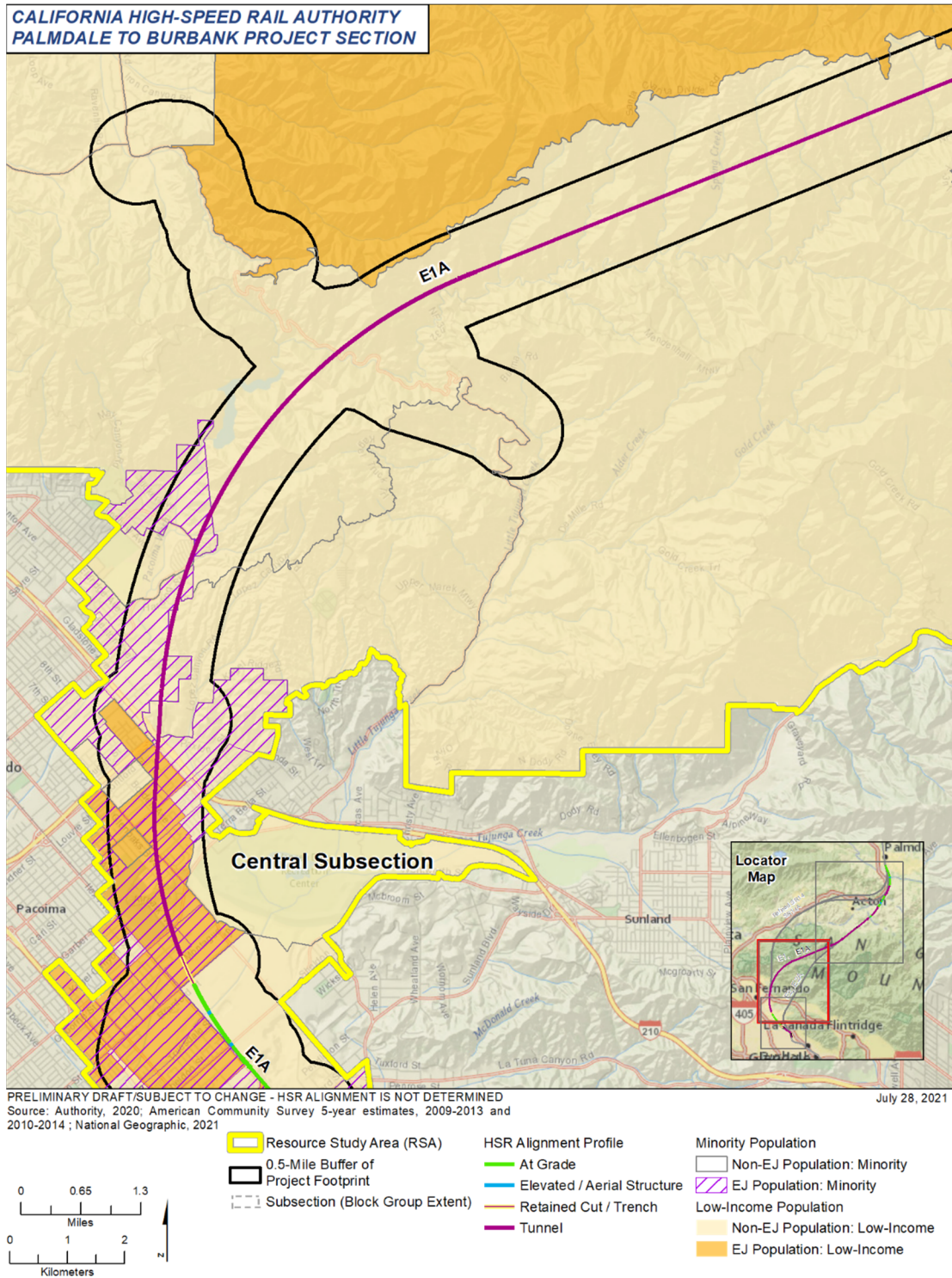


Figure 5-11 E1A Minority and/or Low-Income Populations (Map 2 of 3)

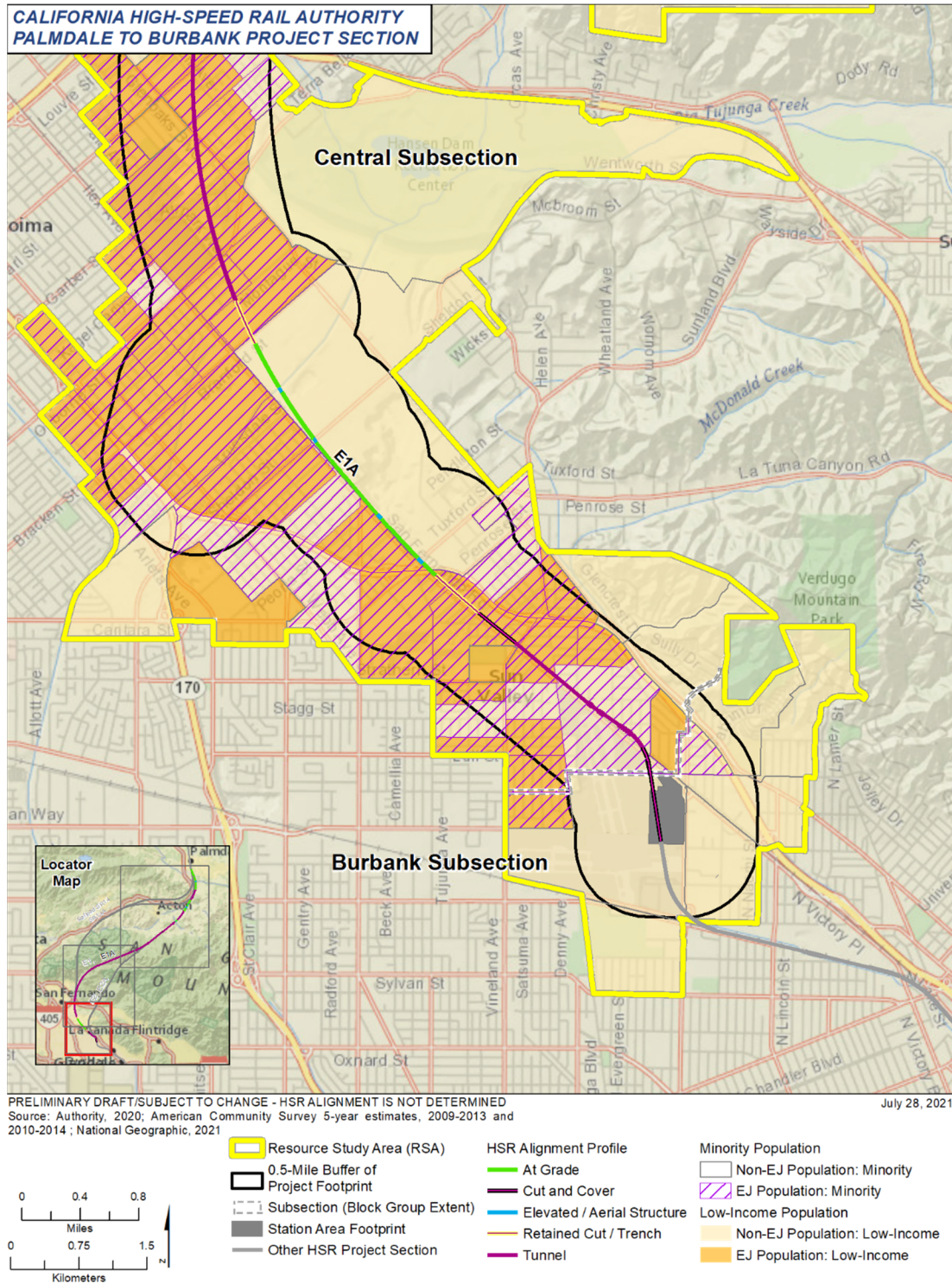


Figure 5-12 E1A Minority and/or Low-Income Populations (Map 3 of 3)

5.5.5 E2 Build Alternative

5.5.5.1 *Minority Populations*

Figure 5-13 through Figure 5-15 show the minority population percentage by census block group in the E2 Build Alternative RSA. There are block groups designated as EJ populations based on minority percentage directly south of Palmdale, which includes the Boulders at the Lake Mobile Home Park east of the alignment. The highest concentration of minority EJ block groups within the Central Subsection is at the subsection’s southern end, north of the Hollywood Burbank Airport. Although this area in the Sun Valley neighborhood contains a notable concentration of EJ populations, the Central Subsection of the E2 Build Alternative RSA crosses substantially fewer block groups that are minority EJ populations compared to the Refined SR14 and E1 Build Alternative RSAs. This is due to the E2 Build Alternative’s shorter segment crossing the central San Fernando Valley, which features a large population that identifies as Hispanic/Latino.

The census block groups overlapping the E2 Build Alternative Burbank Subsection would be identical to those discussed for the Refined SR14 Build Alternative (refer to Section 5.5.1, Refined SR14 Build Alternative).

5.5.5.2 *Low-Income Populations*

Figure 5-13 through Figure 5-15 show the census block groups in the E2 Build Alternative RSA where the percentage of low-income households is greater than the average in Los Angeles County. There are block groups directly south of Palmdale designated as EJ populations based on low-income percentage, which includes the Boulders at the Lake Mobile Home Park. The E2 Central Subsection RSA intersects a smaller number of low-income EJ populations in Sun Valley compared to the Refined SR14 and E1 Build Alternative RSAs. There are also two census block groups in the city of Los Angeles neighborhood of Lake View Terrace that are EJ populations. As discussed earlier regarding the Refined SR14, SR14A, E1, and E1A Build Alternative RSAs, the large block group in the San Gabriel Mountains that is identified as an EJ population is sparsely populated because residential development is generally prohibited, except within certain private inholdings.

The census block groups overlapping the E2 Build Alternative Burbank Subsection would be identical to those discussed for the Refined SR14 Build Alternative (refer to Section 5.5.1, Refined SR14 Build Alternative).

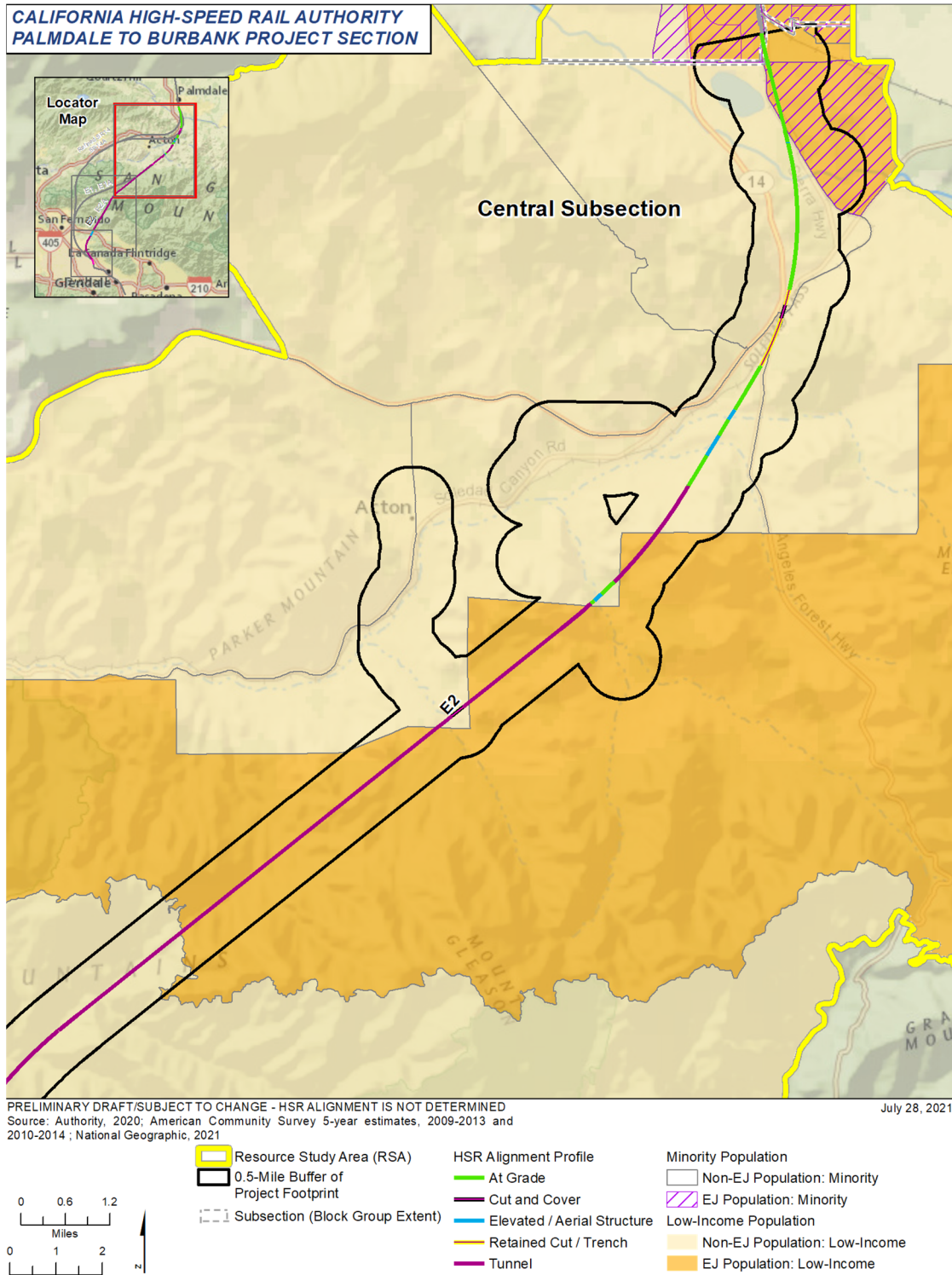


Figure 5-13 E2 Minority and/or Low-Income Populations (Map 1 of 3)

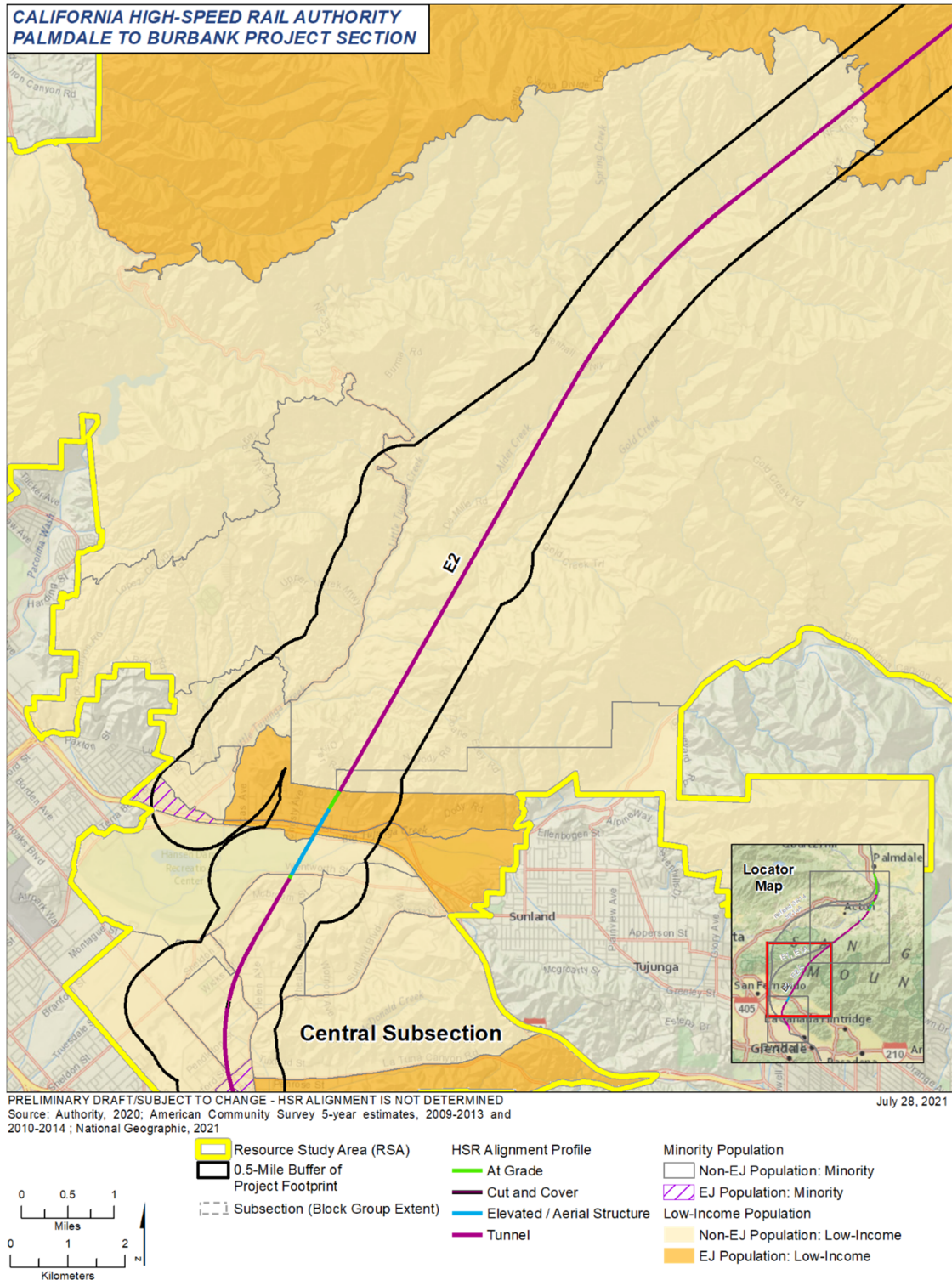
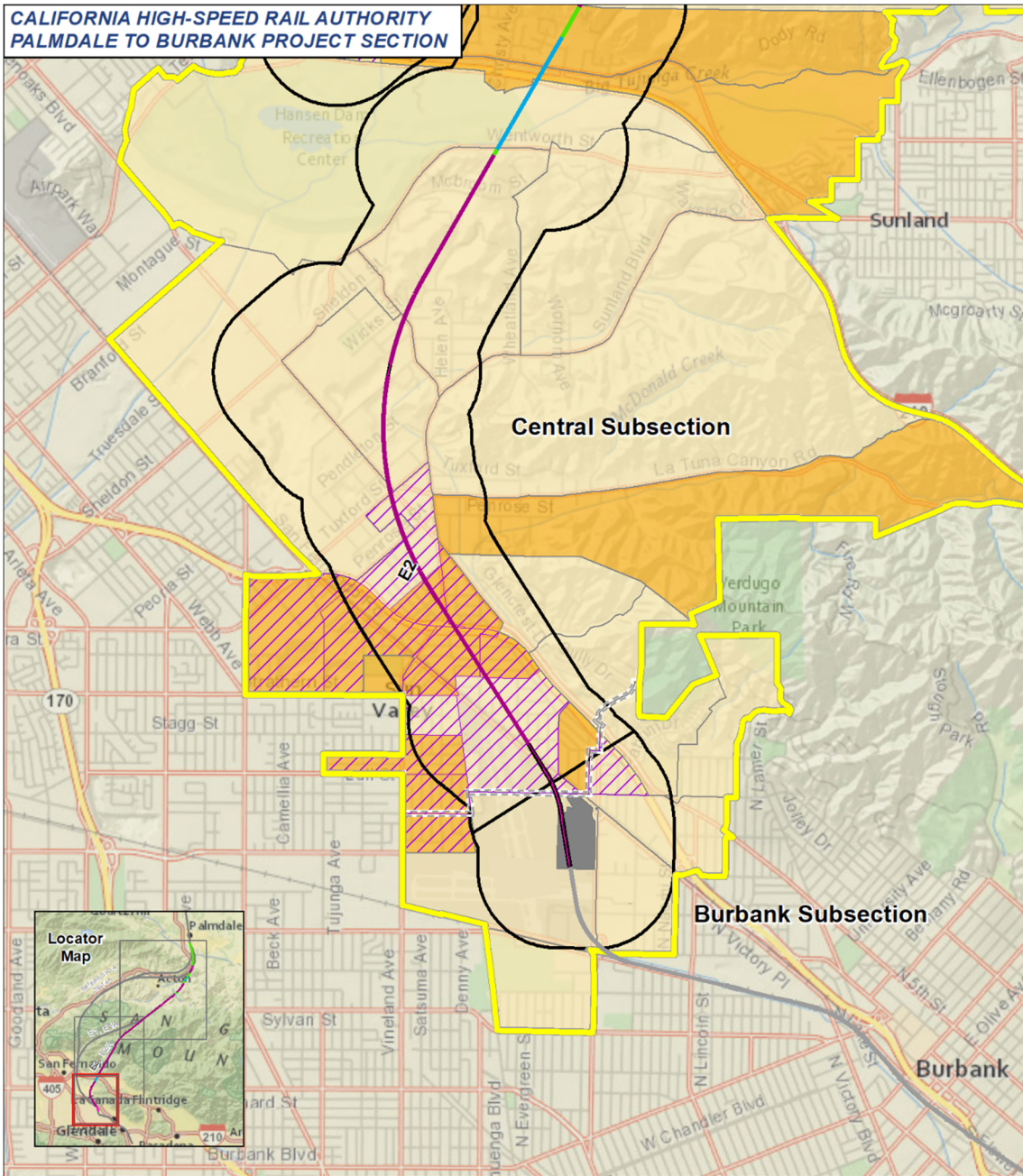


Figure 5-14 E2 Minority and/or Low-Income Populations (Map 2 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021
 July 28, 2021

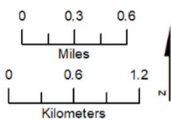
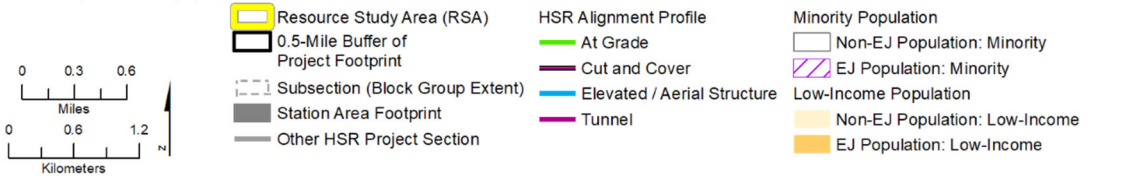


Figure 5-15 E2 Minority and/or Low-Income Populations (Map 3 of 3)

5.5.6 E2A Build Alternative

As shown in Figure 5-16 through Figure 5-18, the E2A Build Alternative RSA comprises the same census block groups as the E2 Build Alternative RSA. Therefore, in terms of EJ populations, the E2A Build Alternative RSA is identical to the E2 Build Alternative RSA despite differences in alignment near Una Lake.

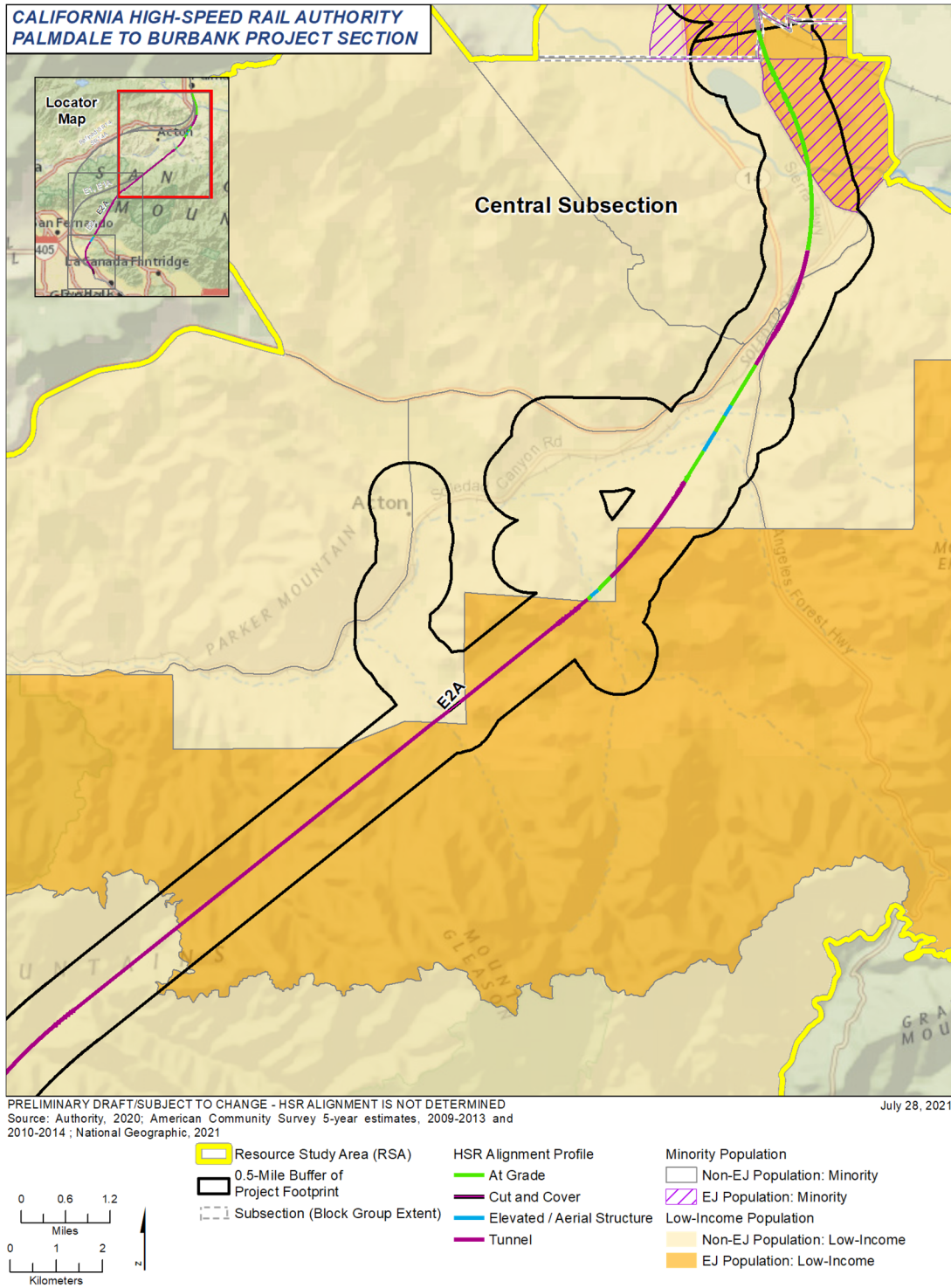


Figure 5-16 E2A Minority and/or Low-Income Populations (Map 1 of 3)

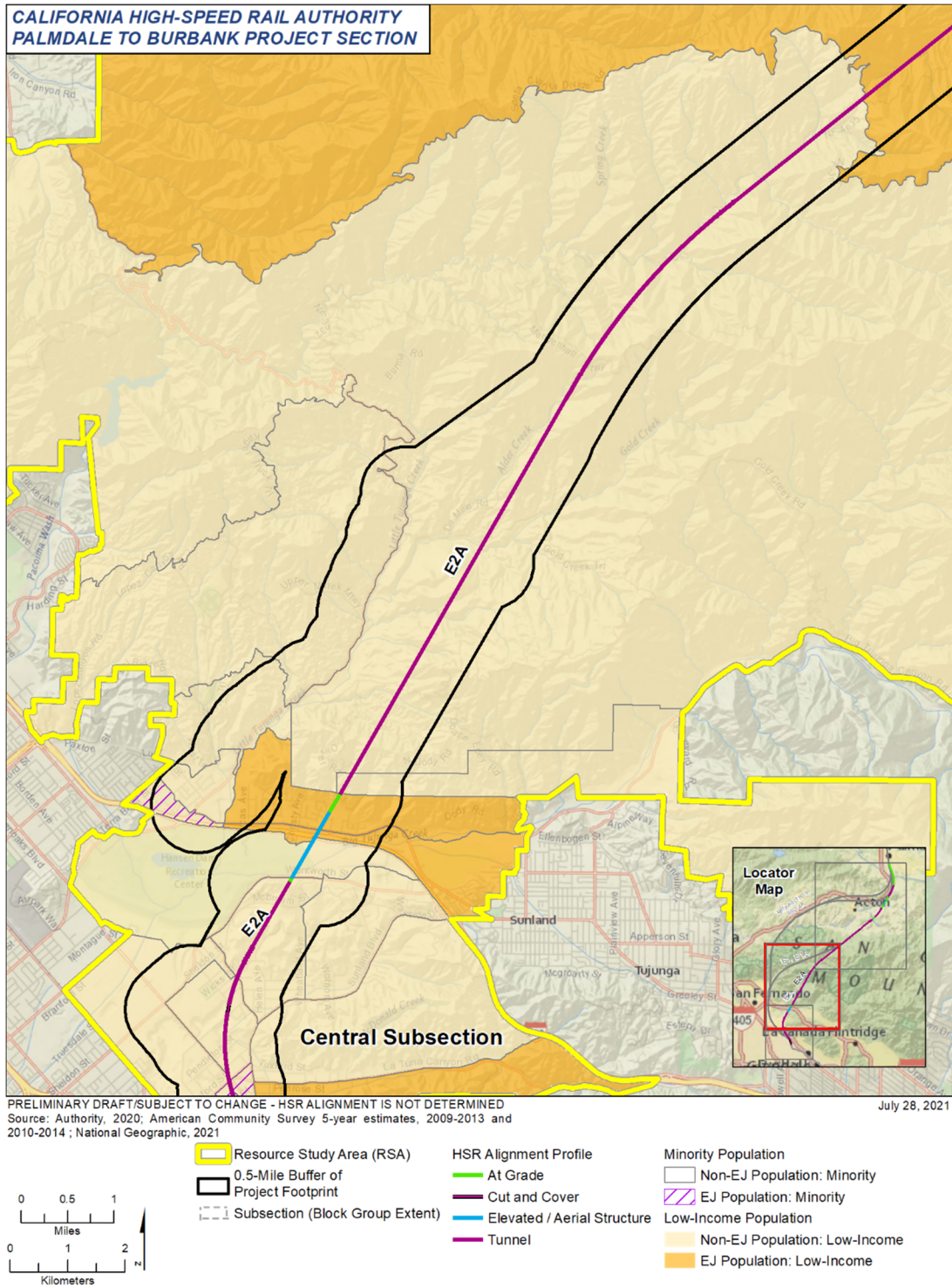
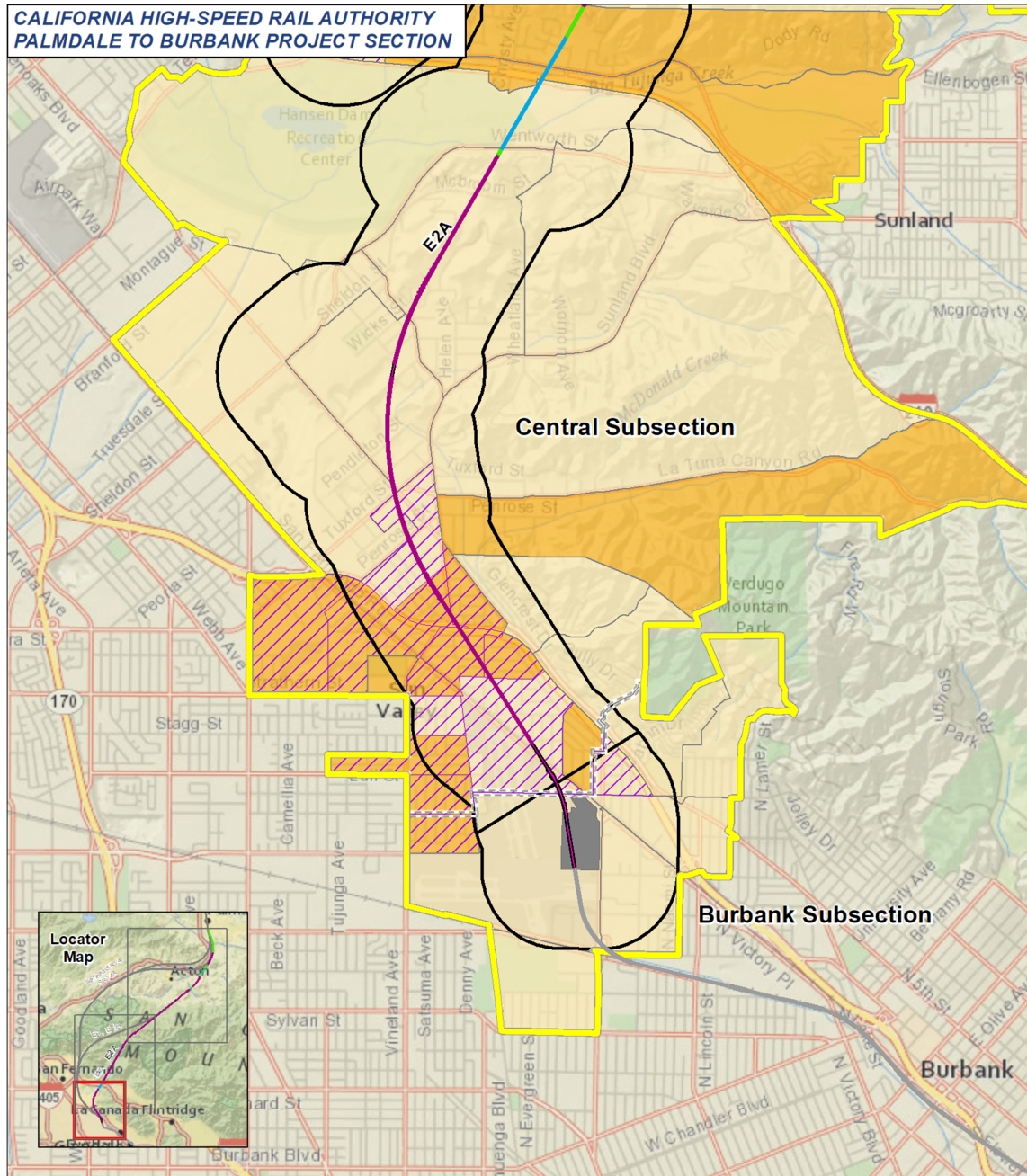


Figure 5-17 E2A Minority and/or Low-Income Populations (Map 2 of 3)



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
 Source: Authority, 2020; American Community Survey 5-year estimates, 2009-2013 and 2010-2014; National Geographic, 2021

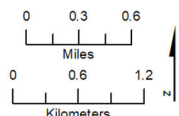
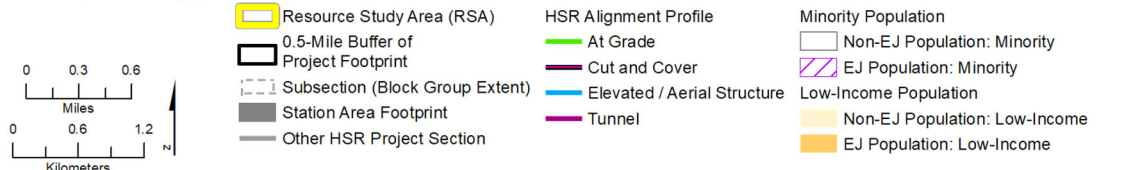


Figure 5-18 E2A Minority and/or Low-Income Populations (Map 3 of 3)

5.6 Environmental Justice Engagement

Analysis of an HSR alignment between Palmdale and Burbank began in 2010 when the Authority published a Preliminary Alternatives Analysis. Subsequently, several Supplemental Alternatives Analyses were published—in 2011, 2012, 2014, 2015, and 2016 (see Chapter 2, Alternatives, for a discussion of the alternatives evaluation process). As described below in Section 5.5.2, after the publication of each Supplemental Alternatives Analysis, the Authority refined the range of alternatives based on preliminary environmental effects findings and community input.

As discussed in Section 5.3, the Authority’s outreach strategy was designed to reach a broad array of interests throughout the corridor (refer to Appendix 5-A for the complete Environmental Justice Outreach Plan). This strategy will continue to be used to engage key stakeholders during the project development process. Outreach to stakeholders along the footprint of the Build Alternatives was a different effort than EJ-specific outreach. The following discussion is separated by outreach to affected populations and issues identified through outreach.

5.6.1 Engagement Methods and Input from Environmental Justice Populations

The Authority has been conducting outreach for the Palmdale to Burbank Project Section since 2014. Such efforts have included public outreach meetings with language interpreters, notices and advertisements in ethnic media publications, and public scoping meetings. While not specifically targeted toward EJ communities, much of this outreach took place within EJ communities and was therefore helpful in creating an understanding of project effects on these populations. Additional outreach events specifically aimed toward EJ communities began in 2015 and are ongoing. Table 5-4 summarizes EJ-specific outreach events for the Palmdale to Burbank Project Section conducted to date.

There are several methods of outreach that the Authority is using to reach specific audiences. Public meetings are being used to disseminate key Authority EIR/EIS updates to all stakeholders and to receive suggestions and feedback in a more conventional, traditional manner. Organizational stakeholder contact involves connecting with EJ advocacy and community groups to gauge interest in scheduling meetings with the project team to offer project suggestions and to inform stakeholder outreach processes. This establishes a direct line of communication with influential groups in the EJ RSA and helps the Authority gather valuable local opinions and insight with regard to the challenges low-income and minority populations in the area face. The *Palmdale to Burbank Section: Community Impact Assessment* (Authority 2019a) contains a list of EJ-related interest groups engaged through outreach efforts.⁶

Local stakeholder contact is intended to directly engage members of low-income and minority populations in conversations to share information, answer questions, and listen to perspectives relevant to the HSR system in an informal, conversational manner. This type of contact takes place most effectively at HSR tables and booths at local fairs and community events or in specific “pop-ups” or “community coffees” in targeted neighborhood areas (for example, see the Antelope Valley Community Clinic event description in Table 5-4). Group stakeholder meetings intended to gather and record topical HSR information as it pertains to low-income and minority populations to inform HSR processes take place in multiparticipant collaborative or round-table meetings (for example, see the Pacoima Branch Library event in Table 5-4).

⁶ It is important to note that the Palmdale to Burbank Project Section traverses the northeast San Fernando Valley, where nearly all communities are designated as low-income EJ communities. Many of these areas are also linguistically isolated, meaning that outreach efforts to these communities must provide language assistance. See the California State Office of Environmental Health and Hazard Assessment’s CalEnviroScreen tool, available at: oehha.ca.gov/calenviroscreen.

Materials are made available to attendees at the various public meetings and events, including project fact sheets, welcome sheets, comment cards, and graphic displays. All materials provided, along with meeting advertisements, are translated as appropriate and are consistent with the Authority's LEP requirements, in addition to having Spanish translation services present at all open house meetings. Furthermore, bilingual members of the outreach team (primarily Spanish speakers) attend all meetings to provide additional support at registration/information tables.

In addition, as depicted in Table 5-4, the Authority has created digital engagement opportunities for participation online, including mobile options, to directly engage members of minority and low-income populations without requiring in-person participation so feedback can be submitted at the participant's leisure.

Table 5-4 Summary of Environmental Justice Outreach Events

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima Neighborhood Council	Los Angeles	Pacoima	2/15/2015	n/a	The Authority presented an overview of the Palmdale to Burbank Project Section and addressed questions and comments
San Fernando Community Working Group (CWG)	San Fernando	San Fernando	2/24/2015	40	This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included: <ul style="list-style-type: none"> ▪ Community-specific concerns ▪ New alternate routes the Authority is considering as part of the planning process
Sylmar CWG	Los Angeles	Sylmar	2/25/2015	32	This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included: <ul style="list-style-type: none"> ▪ Community-specific concerns ▪ New alternate routes the Authority is considering as part of the planning process
San Fernando Valley Town Hall – Imagining Our Transportation Future	Los Angeles	San Fernando	2/26/2015	45	The Authority participated in a panel to discuss “Big Ticket Infrastructure Transit and Highway Opportunities”. The Town Hall meeting examined important issues of public transit and other transportation investment alternatives for the San Fernando Valley region including the Santa Clarita Valley
Communities Against Displacement Community Meeting	Los Angeles	Pacoima, San Fernando, and Sylmar	2/28/2015	90	The Authority presented an overview of the Palmdale to Burbank Project Section and addressed questions and comments from Sylmar, Pacoima, and San Fernando residents. A Spanish interpreter was made available for live interpretation for 20 meeting participants that only spoke Spanish

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Sun Valley CWG	Los Angeles	Sun Valley	3/9/2015	36	<p>This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included:</p> <ul style="list-style-type: none"> Community-specific concerns New alternate routes the Authority is considering as part of the planning process
Pacoima Beautiful	Los Angeles	Pacoima	3/26/2015	35	<p>This event was conducted entirely in Spanish to a group of Pacoima residents. The presentation included an overview of the statewide program, including the importance of HSR to the state. The information presented mostly focused on the Palmdale to Burbank Project Section, with an emphasis on the San Fernando Valley and Pacoima. Details related to the project section included an overview of the proposed alternatives, the environmental process and local concerns, grade separations and noise barriers, and other general project information</p>
Sylmar CWG	Los Angeles	Sylmar	4/16/2015	14	<p>This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included:</p> <ul style="list-style-type: none"> Community-specific concerns New alternate routes the Authority is considering as part of the planning process
Sun Valley CWG	Los Angeles	Sun Valley	4/20/2015	29	<p>This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included:</p> <ul style="list-style-type: none"> Community-specific concerns New alternate routes the Authority is considering as part of the planning process

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima CWG	Los Angeles	Pacoima	4/21/2015	40	This event was conducted in Spanish with live interpretation services for English speakers. This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included: <ul style="list-style-type: none"> ▪ Community-specific concerns ▪ New alternate routes the Authority is considering as part of the planning process
San Fernando CWG	San Fernando	San Fernando	4/23/2015	14	This event brought together key community representatives and other community members to provide an update on the Palmdale to Burbank Project Section. Topics discussed included: <ul style="list-style-type: none"> ▪ Community-specific concerns ▪ New alternate routes the Authority is considering as part of the planning process

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima Open House	Charles Maclay Middle School Multi-Purpose Room 12540 Pierce Ave Pacoima	Pacoima	5/16/2015	82	<p>The purpose of the meeting was to provide information on the Palmdale to Burbank Project Section and allow community members to share any questions and/or concerns. The Authority provided a project update, which was followed by questions and extended dialogue. Topics discussed included:</p> <ul style="list-style-type: none"> ▪ Impacts of SR 14 on San Fernando Road ▪ The cost to move or relocate business will affect people’s livelihoods and retirements ▪ Impact to communities during the construction process due to pollution, debris, and truckloads needed to remove the dirt ▪ Sensitive environments like the Tujunga Wash and Angeles National Forest cannot and should not be altered ▪ Protections from the National Forest will prohibit uses and the Army Corps of Engineers will never build near the wash ▪ Homes and businesses need to receive fair payment if they are to be relocated ▪ This project does not follow what the voters passed

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Sun Valley Open House	Sun Valley High School Multi-Purpose Room 9171 Telfair Ave Sun Valley	Sun Valley	5/19/2015	53	<p>The purpose of the meeting was to provide information on the Palmdale to Burbank Project Section and allow community members to share any questions and/or concerns. The Authority provided a project update, which was followed by questions and extended dialogue. Topics discussed included:</p> <ul style="list-style-type: none"> ▪ Concerns about the placement of the routes and environmental justice issues, pollution, environmental destruction, and impacts to the community ▪ SR 14 is not a viable route because it does not provide the most direct and fastest connection between both stations ▪ The E3 Corridor is the most appealing option for high-speed rail users, because it appears to provide a direct route with the shortest journey time ▪ Construction of the project cannot be rushed; safety needs to be prioritized ▪ Need for information on operational and maintenance costs associated with the project

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Sylmar Open House	Olive Vista Middle School Miles Hall 14600 Tyler St Sylmar	Sylmar	5/27/2015	75	<p>The purpose of the meeting was to provide information on the Palmdale to Burbank Project Section and allow community members to share any questions and/or concerns. The Authority provided a project update, which was followed by questions and extended dialogue. Topics discussed included:</p> <ul style="list-style-type: none"> ▪ Concerns about negative effects from SR 14 on the community, quality of life, and property values ▪ SR 14 will make North Sylmar inaccessible, affect the community’s bus system, and disrupt public transportation ▪ HSR must maintain and promote safe pedestrian access in the community and increase public transportation for the many low-income families ▪ Strong support for E3 alignment ▪ The pollution associated with the construction and operation of the train will negatively affect the community

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
San Fernando Open House	Las Palmas Park – Gymnasium 505 S Huntington St San Fernando	San Fernando	5/28/2015	316	<p>The purpose of the meeting was to provide information on the Palmdale to Burbank Project Section and allow community members to share any questions and/or concerns. The Authority provided a project update, which was followed by questions and extended dialogue. Topics discussed included:</p> <ul style="list-style-type: none"> ▪ Significant opposition to SR 14 ▪ Support for the high-speed rail program as long as the alignment along San Fernando Road is not considered ▪ Significant concern over the temporary and long-term impacts to businesses, schools, churches and first responders along San Fernando Road ▪ Concern over the significant impacts that the sound walls will have in dividing the communities and promoting graffiti and gang violence ▪ Interest on the number and types of jobs that could be generated for the community ▪ Environmental Justice issues identified through the environmental process will reveal that the Authority must select one of the East Corridor alignments ▪ The train only caters to middle-class communities; this community is low income and will not be able to afford to ride the train
St. Didacus Catholic Church Community Meeting	Sylmar	Sylmar	8/27/2015	74	<p>The purpose of the meeting was to provide information on the Palmdale to Burbank Project Section and allow community members to share any questions and/or concerns. The Authority provided a project update, which was followed by questions and extended dialogue. Topics discussed included:</p> <ul style="list-style-type: none"> ▪ Impacts to the Sylmar community ▪ Benefits for the community ▪ Changes to the route since the past May/June meetings

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
City of Los Angeles/San Fernando Valley Stakeholder Working Group (SWG) Meeting	Sun Valley	Sun Valley	4/6/2016	5	The Authority hosted an SWG Meeting to provide a project update specifically regarding the recent refinement to three Palmdale to Burbank Project Section Build Alternatives. Participants were also asked to participate in a planning exercise to affirm and/or state their priorities and preferences of project objectives. Participants were also asked to identify specific projects or programs along the project alternatives that are of interest locally
Sun Valley/Pacoima CWG	Pacoima	Sun Valley Pacoima	8/24/2016	15	During this event, community leaders received updates on the Palmdale to Burbank Project Section Build Alternative alignments and current studies. Questions were answered in a Q&A session with the Engineering, Environmental, Geotechnical, and Planning team. Participants were encouraged to spread the word about the September Open House Meetings (flyers distributed)
Northeast San Fernando Valley CWG	Los Angeles	Sun Valley	8/31/2016	19	During this event, community leaders received updates on the Palmdale to Burbank Build Alternative alignments and current studies. Questions were answered in a Q&A session with the engineering, environmental, geotechnical, and planning team. Participants were encouraged to spread the word about the September Open House Meetings (flyers distributed)
Northeast San Fernando Valley Open House	Sun Valley	Sun Valley	9/22/2016	92	This event was held in Sun Valley. The Authority provided a project update to community members from San Fernando Valley. Key topics included: <ul style="list-style-type: none"> ▪ HSR project update ▪ Summary of the process and timeline as it currently stands ▪ Overview of the alignments that were presented to the public and to the Board in April ▪ Status of Geotechnical Investigations in the Angeles National Forest

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Sun Valley Branch Library	Sun Valley	Sun Valley	7/19/2017	40	This event was an environmental justice community outreach activity held at the Sun Valley Branch Library. The Authority presented an overview of the project
Antelope Valley Partners	Lancaster	Lancaster	7/22/2017	3000	This event was an environmental justice community outreach activity held at the Antelope Valley Partners location in Lancaster. The Authority presented an overview of the project
Small Group Meeting with Pacoima and Sun Valley Community Leaders	Los Angeles	Pacoima Sun Valley	9/25/2018	18	This event was held for community members of Sun Valley and Pacoima. Key topics included: <ul style="list-style-type: none"> ▪ SFV alignment (vertical and horizontal) ▪ Spoils removal system (conveyance) ▪ Community impacts (displacements, noise)
Open House Meeting #2 – Pacoima/Northeast San Fernando Valley	Pacoima	Pacoima/ Northeast San Fernando Valley	9/26/2018	81	This event was held in Pacoima. The Authority provided a project update to community members from San Fernando Valley. Topics discussed at the event included: <ul style="list-style-type: none"> ▪ Summary of the process and timeline as it currently stands ▪ Announcement of the staff-recommended preferred alternative ▪ Overview of the environmental process
Sun Valley Area Neighborhood Council	Sun Valley	Sun Valley	10/9/2018	6	This event was held for the Sun Valley Area Neighborhood Council. The Authority presented an overview of the project, preferred alternative, and outreach efforts completed to date

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima Branch Library	Pacoima Branch Library 13605 Van Nuys Boulevard, Pacoima	Pacoima	2/12/2019	15	<p>The event was a classroom setting with an English conversation class. Most students were unfamiliar with the project, but very engaged. All were nonnative English speakers. Handouts were provided in English and a factsheet in Spanish. Discussed the state map and alignment for phase 1 and phase 2. Because most participants were not familiar with the project, questions were focused on general project information. Topics discussed at the event included:</p> <ul style="list-style-type: none"> ▪ Ticket prices ▪ Cost to build / funding ▪ Route location and selection ▪ Construction jobs and opportunities ▪ Train speeds ▪ Station locations ▪ Future public meetings ▪ Xpress West connection ▪ Community impacts and benefits

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Raw Inspiration	Lancaster Boulevard (between Fern and Ehrlich Avenues), Lancaster	Antelope Valley	2/28/2019	200 total attendees (10 Spanish speakers) 40–50 interacted with outreach team	<p>The event was conducted in an informational booth setting at a BLVD Market (a year-round farmer's market) and was facilitated by a bilingual Spanish staff member. A short interview was given with TheAVweb.com regarding presence of the HSR project team at the event. Topics discussed at the event included:</p> <ul style="list-style-type: none"> ▪ Xpress West connection ▪ Train speeds ▪ Number and location of stations ▪ Many thought the project was canceled ▪ Ticket prices ▪ Construction jobs and opportunities ▪ Time until project operation ▪ Politics and continued viability of project ▪ Project opposition ▪ Route location and selection (e.g., Will the train go to Tehachapi, Lancaster, Van Nuys?)

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Community Inspectors Weekly Meeting	13520 Van Nuys Boulevard, Suite 200, Pacoima	Pacoima	3/18/2019	25 attendees (all Spanish speakers) Meeting and presentation conducted in Spanish	<p>This event was a presentation at the community organization’s weekly meeting. The presentation and meeting were both conducted in Spanish and focused on the overall HSR program and the Palmdale to Burbank Project Section status, and ended with questions and answers. Topics expressed by attendees at the event included:</p> <ul style="list-style-type: none"> ▪ Train speeds ▪ Number and location of stations ▪ Most thought the project was canceled ▪ Ticket prices ▪ Frequency of train run-times ▪ Opportunities for jobs in the community ▪ Time until project operations ▪ Completion date for Central Valley route ▪ Is the train electric? ▪ Plans for further outreach ▪ Better outreach; notifications for public meetings ▪ Information about the alignment in relation to individuals’ homes or businesses ▪ Right-of-way process and how it works

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Francis Polytechnic High School	Francis Polytechnic High School 12431 Roscoe Boulevard, Sun Valley	Sun Valley	3/27/2019	35 attendees, mostly students (English and Spanish speakers)	<p>This event was a presentation at the youth organization’s weekly meeting. The presentation, conducted in English, focused on the overall HSR program and Palmdale to Burbank Project Section status, and ended with questions and answers. Topics discussed at the event included:</p> <ul style="list-style-type: none"> ▪ Status and viability of project ▪ Number and location of stations between Los Angeles and San Francisco ▪ Time until project operation ▪ Top speed of trains ▪ Train speed in residential areas ▪ Train cost and affordability ▪ Project-related jobs, internships, and opportunities ▪ Safety and security for riders ▪ Project funding ▪ Train components and construction ▪ Electrification of train ▪ Station design ▪ Train and station amenities ▪ Homeless population and project ▪ Station safety ▪ Central Valley section completion date ▪ Factors such as economic changes and gentrification induced by the project ▪ Project use of recycled or renewable energy ▪ Electric wires and safety and security measures ▪ Impacts on biological and natural resources and applied mitigation

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Making It Happen, Inc.	Sunland-Tujunga	Sunland-Tujunga	7/20/2019	30 attendees, 15–20 attendees approached booth (English and Spanish speakers)	<p>This event was an informational booth setting where the Palmdale to Burbank Project Section fact sheet and general HSR fact sheets and handouts were available to attendees. The community members that attended were very engaged. Most of the attendees who came to the booth did not know what HSR was and were interested in learning about the project in general, and especially interested in the status of the project. One community member expressed that the community did not want the project and advocated not proceeding with the environmental studies. Topics discussed at the event included:</p> <ul style="list-style-type: none"> ▪ Overview of HSR ▪ Other HSR examples in the world ▪ Station locations ▪ Xpress West connections ▪ Construction duration ▪ Safety and security for riders ▪ Identification required for train use ▪ Electricity of train

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Meet Each Need With Dignity	10641 San Fernando Road, Pacoima	Pacoima	8/10/2019	100 attendees, 40–45 attendees approached booth (90% Spanish speakers)	<p>This event was an informational booth setting and was facilitated by two staff, one of whom was bilingual (Spanish). A table was set up with informational material outside of the facility to engage with the participants as they entered and exited. Out of the approximately 100 attendees, about 40 to 45 people approached the table to ask about HSR rail. Most had not heard of the program and were excited to learn that it was under construction in the Central Valley. Some of the younger attendees were very happy to receive information and the HSR shield stickers. Community members were engaged and open to information about the HSR program and the new technologies that the train will use, including positive train control, all electric, and renewable energy. Overall, it was a positive reception from the group. Topics discussed at the event included:</p> <ul style="list-style-type: none"> ▪ Overview of HSR ▪ Station locations ▪ Number of stops between Los Angeles and San Francisco ▪ Train speeds ▪ Time until project operations ▪ Advocated need for station in Pacoima ▪ Affordability ▪ Jobs and opportunities <p>Electricity of train</p>

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Virtual Community Meeting #1 (Spanish)	Virtual (Zoom)	Los Angeles	10/22/2020	146	Key Themes/Questions Received by Attendees: <ul style="list-style-type: none"> ▪ Environmental ▪ Construction/ Tunneling ▪ Funding ▪ Impacts on the following: <ul style="list-style-type: none"> ▪ Businesses ▪ Communities ▪ Community Engagement ▪ Emergency Protocols ▪ Alignment Finalization
Sun Valley Area Neighborhood Council Briefing	Virtual (Zoom)	Sun Valley	2/9/2022	12	Key Themes Delivered: <ul style="list-style-type: none"> ▪ L. DiCamillo gave an overview of the current project status, including statewide overview and environmental process. ▪ L. DiCamillo provided a funding update. ▪ L. DiCamillo reviewed surrounding project sections: Bakersfield to Palmdale and Burbank to Los Angeles project section overview and approval of Burbank Airport Station. ▪ R. Simon provided the Palmdale-Burbank project section overview and schedule. ▪ R. Simon provided San Fernando Valley Grade Separation update. ▪ G. Arellano discussed the outreach to date. ▪ L. DiCamillo provided Palmdale to Burbank Environmental Process.

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima Beautiful Briefing	Virtual (Zoom)	Pacoima	2/14/2022	15	<p>Key Themes Delivered:</p> <ul style="list-style-type: none"> ▪ L. DiCamillo gave an overview of the current project status, including statewide overview and environmental process. ▪ L. DiCamillo provided a funding update. ▪ L. DiCamillo reviewed surrounding project sections: Bakersfield to Palmdale and Burbank to Los Angeles project section overview and approval of Burbank Airport Station. ▪ R. Simon provided the Palmdale-Burbank project section overview and schedule. ▪ R. Simon provided San Fernando Valley Grade Separation update. ▪ G. Arellano discussed the outreach to date. ▪ L. DiCamillo provided Palmdale to Burbank Environmental Process.

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Stakeholder Working Group – Southern Section	Virtual (Zoom)	Pacoima	9/20/2022	21	Key Themes from Attendees: <ul style="list-style-type: none"> ▪ Truck traffic/hauling/spoils removal ▪ Truck pollution ▪ Site cleanup site data ▪ Source of electricity for project ▪ Forest service permitting/special use authorization for water access ▪ Avion Burbank Project in EIR/EIS ▪ Water source/water resources/water use/monitoring wells ▪ Tunneling/tunnel liners ▪ Safe pedestrian access to train lines ▪ Existing conditions documented in EIR/EIS ▪ Data for interactive map layers ▪ Length of EIR/EIS and extension of comment period ▪ Access to public comments ▪ Request/availability of technical reports
Virtual Open House (Spanish)	Virtual (Zoom)	Project Section: Palmdale to Burbank	10/6/2022	69	Key Themes from Attendees: <ul style="list-style-type: none"> ▪ Gas lines near Van Nuys Blvd ▪ Interactive Map ▪ Potential concrete batch locations ▪ Potential aquifer issues ▪ Train electrification versus non-electric locomotives ▪ Water source/water resources/water use ▪ Data for interactive map layers ▪ Train route notification ▪ Tunnel paths/exits ▪ Partial property acquisitions ▪ Years until completion of Phase 1

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
In-Person Information Session – Southern Section	Pacoima	Pacoima	10/12/2022	22	<p>Key Themes from Team:</p> <ul style="list-style-type: none"> ▪ Alternatives and the reasons for choosing SR14A as the Preferred Alternative ▪ Overview of the environmental documents and reviewed the design considerations to avoid and minimize impacts ▪ Summary of the impacts and the interactive property impacts map ▪ Information about the Draft EIR/EIS release, project schedule, public meetings and next steps, Meethrsocal.org Demo
Pacoima Beautiful – Turn on the Sun	Pacoima	Pacoima	10/22/2022	16	<p>Key Themes from Team:</p> <ul style="list-style-type: none"> ▪ Alternatives and the reasons for choosing SR14A as the Preferred Alternative ▪ Overview of the environmental documents and reviewed the design considerations to avoid and minimize impacts ▪ Summary of the impacts and the interactive property impacts map ▪ Information about the Draft EIR/EIS release, project schedule, public meetings and next steps, Meethrsocal.org Demo

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Virtual Public Hearing	Virtual (Zoom)	Project Section: Palmdale to Burbank	10/18/2022	76	<p>Key Themes from Attendees:</p> <ul style="list-style-type: none"> ▪ Residential impacts ▪ Effects to schools within and near the project footprint ▪ Specific impacts to Vazquez High School ▪ Project cost ▪ Concerns with the high-speed rail project being an inadequate use of budget ▪ Neighborhood impacts in Sylmar ▪ No benefit to communities in the San Fernando Valley area ▪ No stops in San Fernando Valley affects community growth ▪ Impacts and no benefits to the Black and Brown communities in the San Fernando Valley area ▪ Toxic soil at Spreading Ground could cause pollution in the community ▪ Burbank Airport Station configuration and impacts to existing properties at location ▪ Congestion at Burbank Station ▪ Exit tunnel impacts ▪ Lack of water supply in the northern section ▪ Coordination with EJ communities to discuss potential impacts ▪ Community accessibility to trains ▪ Lack of benefits to all communities that will be affected ▪ Lack of in-person meeting efforts in affected areas after regular business hours

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
					<ul style="list-style-type: none"> ▪ Accessible train prices for benefit of the affected community ▪ Effects on property value due to potential property acquisition ▪ Effects to current proposed projects in the area ▪ Traffic congestion due to all the transportation already in the area ▪ Concerns about responses to public comments ▪ Availability of notification and project materials in Spanish
Pacoima and Sun Valley In-Person Community Meeting	Pacoima	Pacoima and Sun Valley	11/6/2023	28	<p>The event was hosted by the Authority in Pacoima, and included representatives from the Acton Town Council, the City of Los Angeles, the Kagel Canyon Civic Association, and the Sun Valley Area Neighborhood Council. Topics discussed at this event included:</p> <ul style="list-style-type: none"> ▪ Air pollution during construction ▪ Business displacement ▪ Coordination with other projects in the area (Pacoima Dam) ▪ Spoils removal locations ▪ Interactive map/property acquisitions ▪ Water issues: sources, usage, aquifer issues/contamination ▪ Potential concrete batch locations ▪ Tunnel portals ▪ Construction phasing

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima and Sun Valley Virtual Community Meeting	Virtual (Zoom)	Pacoima and Sun Valley	11/7/2023	27	<p>The event was hosted by the Authority online, and included representatives from the City of Burbank, Los Angeles's 6th City Council District, Los Angeles's 7th Council District, the Foothill Trails District Neighborhood Council, South Coast Wildlands (SC Wildlands), and the Office of Assemblywoman Luz Rivas. Topics discussed at this event included:</p> <ul style="list-style-type: none"> ▪ Business impacts/relocation ▪ Construction timeline ▪ Data for interactive map layers ▪ Environmental justice/equity ▪ Interactive map/property acquisition ▪ Pacoima Dam impact ▪ Residential property impacts ▪ Safety ▪ Tunnel portals
Pacoima Beautiful Briefing (Spanish)	Virtual (Zoom)	Pacoima	11/18/2023	12	<p>Key Themes from Attendees:</p> <ul style="list-style-type: none"> ▪ Employment Opportunities ▪ Air Quality Concerns ▪ Radiation Questions ▪ Resource for the community to contact during construction period ▪ Concerns over cracks in Sylmar

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Meeting with Councilmember Imelda Padilla	Sun Valley	Sun Valley	11/27/2023	4	The briefing included representatives from the Office of Councilmember Padilla. Topics discussed at this event included: <ul style="list-style-type: none"> ▪ Opportunities for redevelopment/landscaping near tunnel portal ▪ Configuration of Penrose/Olinda ▪ Business impacts (particularly along Little San Fernando Rd) ▪ Relocation plan collaboration ▪ Impacts to Sun Valley Metrolink Station/partnership with Metrolink ▪ Engagement with CBOs ▪ Utilization of local artists
Sun Valley Area Neighborhood Council Planning and Land Use (PLUM) Committee	Sun Valley	Sun Valley	11/30/2023	7	The meeting was hosted by the Sun Valley Area Neighborhood Council PLUM Committee, and staff from the Office of Councilmember Padilla was also in attendance. Topics discussed at this event included: <ul style="list-style-type: none"> ▪ Grade-separations/impacts to Metrolink ▪ Impacts to Little San Fernando Rd ▪ List of affected businesses ▪ Impacts to businesses/notification/ compensation ▪ Construction impacts/reporting ▪ Impacts on local schools ▪ Construction equipment/air quality/monitoring ▪ Tunnel spoil disposal ▪ Impacts to bike path ▪ Grade separation construction phasing

Organization	Location	Community Area	Date	Attendees	Topics Discussed with Attendees
Pacoima Beautiful Community Inspectors (All Spanish)	Pacoima	Pacoima	12/8/2023	23	<p>This event was a presentation at the community organization’s weekly meeting. The presentation and meeting were both conducted in Spanish and focused on the overall HSR program and the Palmdale to Burbank Project Section status, and ended with questions and answers. Topics expressed by attendees at the event included:</p> <ul style="list-style-type: none"> ▪ Concern for street vendors ▪ Construction and notification fatigue ▪ Health concerns/disproportionate impacts on this community ▪ Communication with schools (esp. Alliance MIT Middle School) ▪ Interest in regular briefings ▪ Proactive outreach (e.g. flyering)
Pacoima Neighborhood Council	Pacoima	Pacoima	1/17/2024	24	<p>The Authority made a brief presentation focused on the IAMFs during the public comment period at the Pacoima Neighborhood Council meeting. Board members received a hard copy of the presentation, as well as the IAMF feedback form. Due to the time constraints, there were no questions asked or other comments made. The final slide with full project information was highlighted at the end of the presentation. Board members and community members were encouraged to view the website for the flyover video, to access in-depth information about the project, and specific contact information. Key materials (including the project fact sheets and IAMF feedback form) were also left out on the tables for attendees to take if interested</p>

Several outreach events scheduled to occur were ultimately canceled if the event was not approved by the Authority or by the hosting organization. Canceled events are not included in the table. For further information regarding the Authority’s outreach efforts, refer to Chapter 9, Public and Agency Involvement.

Authority = California High-Speed Rail Authority; HSR = high-speed rail; n/a = outreach event was held but information regarding number of attendees is not available

5.6.2 Response to Issues and Concerns of Environmental Justice Populations

In response to the extensive outreach performed by the Authority to date, community members throughout the Palmdale to Burbank Project Section have provided feedback on the California HSR Project at various stages in the project development. Since the *2010 Preliminary Alternatives Analysis for the Palmdale to Los Angeles Project Section* (Authority and FRA 2010), which analyzed an HSR corridor that would roughly follow State Route (SR) 14, alignment refinements were made in response to community feedback. The Refined SR14 Build Alternative, as presented in this analysis, was refined to avoid EJ communities in the San Fernando Valley by tunneling beneath a portion of the ANF including SGMNM. The East Corridor, which includes the E1, E1A, E2, and E2A Build Alternatives presented in this analysis, was introduced to avoid both EJ and non-EJ community effects by traveling long distances in tunnels beneath the ANF including SGMNM. For a full summary of the feedback received during the public engagement periods, refer to Chapter 9, Public and Agency Involvement.

5.6.3 Summary of Environmental Justice Engagement

EJ-specific outreach for the Palmdale to Burbank Project Section is an ongoing effort that began in 2015. EJ outreach involves engaging minority and/or low-income populations in the RSA to communicate project information, listening to and responding to community thoughts and concerns, and identifying potential actions to mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and/or low-income populations. The purpose of these outreach activities is to inform local community members about the California HSR Project and its status and to provide opportunities by which minority and/or low-income communities can effectively take part in the planning process for the project.

During the Authority's outreach pre-Draft EIR/EIS release, EJ communities raised concerns about project funding, project timeline, ticket prices, station locations, construction disruption to communities, business impacts, workforce training, construction air, traffic, and noise impacts, proposed noise barriers, safety and security, and other general community effects and benefits thus far (see Table 5-4).

Following the release of the Draft EIR/EIS, the Authority received comments during the public comment period from communities that focused on five key areas: communications and outreach; businesses and local workforce; community cohesion and aesthetics; safety and security; and construction, air, noise and traffic effects.

In response to these comments and in recognition of the disproportionate and adverse impacts on environmental justice communities in the Northeast San Fernando Valley, particularly Pacoima and Sun Valley, the Authority developed additional IAMFs focused on those five areas: communications and outreach; businesses and local workforce; community cohesion and aesthetics; safety and security; and construction, air, noise and traffic effects.

From November 2023 through January 2024, the Authority hosted two EJ listening sessions and presented at three stakeholder briefings to share and gather feedback on the additional IAMFs developed for the Palmdale to Burbank Project Section. New issues raised during these meetings included coordination with other agencies regarding other regional projects to address cumulative impacts, construction phasing, engagement with community-based organizations regarding project design, potential impacts on charter schools, and concerns for street vendors.

5.7 Environmental Consequences

As described in Section 5.3, this section summarizes the potential disproportionately high and adverse effects discussed in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures, of this Final EIR/EIS. The analysis considers both IAMFs and mitigation measures in determining whether EJ populations would experience adverse effects. All effects in the relevant Chapter 3 sections were reviewed. However, only those effects determined to be relevant for this chapter's analysis and/or occurring in EJ communities are included in this section.

5.7.1 No Project Alternative

The No Project Alternative assumes the construction and operation of planned and programmed projects (see Chapter 2, Alternatives), which have the potential to result in environmental effects on EJ populations. Planned and programmed projects under the No Project Alternative conditions would primarily occur within existing urbanized areas in the San Fernando Valley, including the city of Burbank. These projects would generally avoid the Central Subsection and the ANF, including SGMNM, which largely preclude development due to protected land designations set by the United States Forest Service. Environmental effects of the No Project Alternative with the potential to result in effects on EJ populations are discussed below.

5.7.1.1 Transportation

As discussed in Section 3.2, Transportation, the transportation analysis incorporated the anticipated increase in travel patterns for the projected increase in population and employment. Under the No Project Alternative, several roadway segments and intersections would operate at level of service (LOS) E or F during peak periods in 2040. Under No Project Alternative 2040 conditions, there would be adequate ramp queuing capacity and similar or improved pedestrian and bicycle facilities around the Burbank Airport Station area. Cities and counties in the region would evaluate the transportation effects of projects in the course of separate environmental review and require that projects incorporate measures to avoid, minimize, or mitigate adverse effects to the extent feasible. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

Under the No Project Alternative, neither EJ nor non-EJ communities would benefit from the project-related reduction of vehicle trips and vehicle miles traveled (VMT) on freeways through the provision of another mode of intercity passenger transportation.

5.7.1.2 Air Quality and Global Climate Change

Total No Project Alternative emissions for some pollutants—volatile organic compounds (VOC), carbon monoxide (CO), and nitrogen oxides (NO_x)— would decrease from 2015 to 2040, mainly owing to anticipated improvements in automobile emissions standards over time. For other pollutants—sulfur dioxide, respirable particulate matter, and fine particulate matter—total emissions would increase during the same period (see Section 3.3, Air Quality and Global Climate Change). Such emissions would affect both EJ and non-EJ populations.

Emissions from on-road vehicles would decrease over time because newer, lower-emitting vehicles would replace older, higher-emitting vehicles that are retired, and these decreases would more than offset increases due to a higher number of VMT brought about by population and economic growth. Emissions from power plants would increase because electrical demand is expected to grow as demand for energy and industrial products rise along with population and economic growth. This growth would more than offset reductions in electrical generation emissions due to the use of renewable energy sources (see Section 3.3, Air Quality and Global Climate Change). Projects assumed as part of the No Project Alternative would undergo separate environmental review to identify any adverse effects. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

Under the No Project Alternative, neither EJ nor non-EJ communities would benefit from a project-related reduction in long-term automobile emissions associated with the decrease in VMT created by providing another mode of intercity passenger transportation.

5.7.1.3 Noise and Vibration

The No Project Alternative assumes that the population in the RSA would continue to grow, and changes and improvements to transportation infrastructure in and near the Palmdale to Burbank Project Section would be implemented by other projects. The effects of the existing built environment on noise would continue, including effects from continued operation of existing highways, airports, and railways. Highways would experience higher VMT under the No Project

Alternative, which would generate greater levels of noise in the RSA. The anticipated growth includes other projects, which would result in changes to the noise effects. Foreseeable development under the No Project Alternative would not entail the construction of long tunnels in the project area. Such construction, which is unique to the Build Alternatives, would decrease transportation-related noise effects by rerouting traffic that can be anticipated from the continued growth under the No Project Alternative, thereby reducing future transportation noise in the project area. Therefore, noise levels are expected to increase over time in the RSA with the No Project Alternative.

Under the No Project Alternative, existing vibration effects would continue and would increase along major transportation corridors through undeveloped areas between Palmdale and Burbank. Higher VMT under the No Project Alternative could generate greater vibration effects that could require assessment in the environmental documents of any proposed project. The anticipated growth includes other projects, which would result in changes to the vibration effects. Cities and counties in the region would evaluate the noise and vibration effects of projects in the course of separate environmental review, and would require that projects incorporate measures to avoid, minimize, or mitigate adverse effects to the extent feasible. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.1.4 Electromagnetic Interference and Electromagnetic Fields

The use of electricity and radio frequency communication equipment, including high-voltage power lines and directional and nondirectional (cell and broadcast) antennas that result in EMFs and EMI, currently occurs and would continue to occur along the Palmdale to Burbank Project Section. Under the No Project Alternative, future conditions would be likely to result in additional use of electricity and radio frequency communications, consistent with that found in the urban and rural environments in the RSA today. It is reasonable to assume that, by 2040 with the No Project conditions, the use of electricity and radio frequency communications would increase because of increased development, greater use of electrical devices, and technological advances in wireless transmission (such as wireless data communication). As a result, generation of EMFs and EMI that might affect people and sensitive receptors would continue in the area with implementation of the No Project Alternative.

Projects planned under the No Project Alternative would undergo separate environmental review to determine whether the projects would result in adverse effects related to EMI/EMF. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.1.5 Hydrology and Water Resources

The No Project Alternative assumes that the population in the RSA would continue to grow. The effects of the existing built environment on hydrology and water resources would continue. Construction projects could alter surface water drainage patterns, modify watercourse capacity and water-flow height, increase erosion and sedimentation, degrade surface water or groundwater quality, and increase flood risks by altering flood hazard areas. Long-term effects associated with these projects could increase stormwater runoff speed and rates, permanently alter watercourse hydraulic capacity, degrade surface water or groundwater quality, increase flood heights, or decrease groundwater recharge. Such development could occur in EJ populations. However, new development projects would be subject to federal, state, and local regulations designed to control stormwater runoff, which require construction-period pollution controls, prevent floodplain development, provide for adequate groundwater recharge, and otherwise protect hydrologic resources and water quality. Adherence to these regulations would avoid and minimize hydrology and water resource effects under No Project Alternative conditions.

However, it is reasonable to assume that projects planned under the No Project Alternative would undergo separate environmental review to determine whether the projects would result in adverse effects, which would include an analysis of mitigation measures to mitigate effects. For projects

subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.1.6 Hazardous Materials and Wastes

Anticipated growth under the No Project Alternative includes other projects that would require or encounter hazardous materials in types that would be comparable to those encountered by the Build Alternatives—including hazardous building materials, residual pesticides, landfill sites, educational facilities, oil and gas infrastructure, roadway and railway contamination, and other hazardous materials required for construction or operation activities.

By 2040, redevelopment on lands with existing Potential Environmental Concerns sites is likely throughout the project area. This redevelopment would necessitate investigation and remediation with appropriate oversight. Projects associated with the No Project Alternative would be subject to federal and state oversight regulating the investigation and remediation of hazardous waste during the development process. Accidental spills or releases of hazardous materials and wastes could result from continued operation of commercial and industrial facilities or during transportation of these products. Such accidents might result in new Potential Environmental Concerns sites that could affect future No Project Alternative improvements. Projects planned under the No Project Alternative would undergo separate environmental review to determine whether the projects would result in adverse effects. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

Incorporation of standard best management practices, IAMFs, and coordination with regulatory agencies would reduce risks associated with hazardous materials and wastes throughout the No Project Alternative timeline. None of the anticipated developments comprising the No Project Alternative would entail the extensive level of excavation necessary for the Build Alternatives. Given that extensive tunneling would likely not be required, the No Project Alternative would be unlikely to generate similar quantities of hazardous spoils.

5.7.1.7 Safety and Security

It is anticipated that under the No Project Alternative, safety and security in the RSA would follow current trends of emergency service response times. Under the No Project Alternative, existing emergency response plans and procedures would remain effective in the RSA. However, revisions and amendments to these plans and procedures could be made as a result of the anticipated population growth and implementation of the development projects.

As discussed in Section 3.11, Safety and Security, emergency responders would continue to experience delays throughout the study area at numerous at-grade crossings of the existing Union Pacific Railroad, BNSF, and San Joaquin Valley Rail under the No Project Alternative. While the Southern California Association of Governments (SCAG) region is anticipated to improve regional congestion as a whole in future years, alleviating delays experienced by emergency service providers, Los Angeles County is anticipated to experience the largest amount of delay (11.5-minute daily delay per capita) within the SCAG region in future years (SCAG 2016). Thus, it is expected that existing levels of delays for emergency service providers in the project area would continue into the future. By 2040, the Los Angeles County population is projected to increase by approximately 13 percent over 2015 levels. Modest growth is expected for the cities of Los Angeles and Burbank (16 and 12 percent, respectively). Between 2010 and 2015, violent crime decreased by approximately 3 percent while property crime remained relatively constant. The demand for law enforcement, fire, and emergency services would be expected to change commensurate with anticipated population growth.

Projects anticipated as part of the No Project Alternative would undergo separate environmental review to determine whether the projects would result in adverse effects related to safety and security. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.1.8 Socioeconomics and Communities

Anticipated growth under the No Project Alternative includes other projects (as described in Chapter 2, Alternatives) that would result in permanent displacement of residences and commercial and industrial businesses. Such projects would be within the existing urban and suburban areas of Palmdale, Los Angeles, and Burbank. Land use restrictions established by the United States Forest Service would largely preclude projects within the ANF, including SGMNM, under the No Project Alternative. Additionally, the No Project Alternative could result in economic effects, disrupt or divide established communities, and/or reduce community cohesion. Such effects could occur in EJ populations and result in adverse effects on EJ communities. Projects anticipated with the No Project Alternative would undergo separate environmental review to determine whether the projects would result in adverse effects. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.1.9 Parks, Recreation, and Open Space

As discussed in Section 3.15, Parks, Recreation, and Open Space, future developments planned under the No Project Alternative would require individual environmental review. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations. This review would include an analysis of future development effects on parks, recreation, and open space resources, and the environmental effects of acquiring new parks and constructing new recreational facilities necessary to meet acceptable service ratios. Otherwise, the No Project Alternative would not result in the physical alteration of existing parks or other recreational facilities or result in a need to provide new parks or other recreational facilities, the construction of which could cause significant environmental effects to maintain acceptable service ratios or other performance objectives.

5.7.1.10 Aesthetics and Visual Quality

Planned growth in Los Angeles County would add residential and commercial developments and associated infrastructure to the viewed landscape. These include both instances of suburban expansion and development in existing urban areas. These proposed projects would influence the future visual character of the RSA. Such development could be within census block groups with EJ populations. Projects assumed as part of the No Project Alternative would undergo separate environmental review to identify any adverse effects. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.1.11 Cultural Resources

The No Project Alternative would be likely to avoid adverse effects on archaeological and historic built resources that would result from the Build Alternatives. To avoid sensitive environmental and community resources on the surface, the Palmdale to Burbank Project Section proposes extensive tunneling throughout the region. Project construction could impact known and unknown archaeological resources, resulting in an adverse effect. For the No Project Alternative, other projects would not require extensive tunneling, and there would be increased opportunities to implement monitoring to observe and protect known and unknown archaeological resource sites.

Projects planned under the No Project Alternative would undergo separate environmental review to determine whether the projects would result in adverse effects related to cultural resources. For projects subject to USEO 12898, the separate environmental review would include analysis to determine whether the projects would have disproportionately high and adverse effects on EJ populations.

5.7.2 Build Alternatives

For each of the Build Alternatives, the project would result in environmental effects that could affect EJ populations in a potential disproportionately high and adverse way (referred to as disproportionately high and adverse effects or DHAEs). Potential DHAEs of the Build Alternatives

are discussed below. Table 5-5 summarizes all of the effects of the each of the Build Alternatives following implementation of IAMFs and mitigation measures in topic areas relevant to this EJ analysis. If the project will not cause an adverse effect, it will not cause a DHAE on any EJ community. Section 5.7.4 includes a condensed summary of environmental topic areas to determine whether, for any resource area, the project would cause any potential DHAEs on EJ communities.

Table 5-5 Summary of NEPA Effects on EJ and non-EJ Populations Post-Mitigation– All Build Alternatives

Environmental Topic	Refined SR14	SR14A	E1	E1A	E2	E2A
Transportation ¹	Adverse (spoils hauling on roadways and intersections) Not Adverse (construction effects on roadways and intersections, effects on transit services and nonmotorized transportation modes) Beneficial (operational VMT and LOS reductions)	Adverse (spoils hauling effects on roadways and intersections) Not Adverse (construction effects on roadways and intersections, effects on transit services and nonmotorized transportation modes) Beneficial (operational VMT and LOS reductions)	Adverse (spoils hauling on roadways and intersections) Not Adverse (construction effects on roadways and intersections, effects on transit services and nonmotorized transportation modes) Beneficial (operational VMT and LOS reductions)	Adverse (spoils hauling on roadways and intersections) Not Adverse (construction effects on roadways and intersections, effects on transit services and nonmotorized transportation modes) Beneficial (operational VMT and LOS reductions)	Adverse (spoils hauling on roadways and intersections) Not Adverse (construction effects on roadways and intersections, effects on transit services and nonmotorized transportation modes) Beneficial (operational VMT and LOS reductions)	Adverse (spoils hauling on roadways and intersections) Not Adverse (construction effects on roadways and intersections, effects on transit services and nonmotorized transportation modes) Beneficial (operational VMT and LOS reductions)
Air Quality and Global Climate Change ²	Adverse (regional construction emissions exceedances for NO _x and CO, localized construction emissions exceedances for NO ₂ and PM ₁₀); Not Adverse (health risk assessment for construction emissions); Beneficial (operational criteria pollutant and GHG emission reductions)	Adverse (regional construction emissions exceedances for NO _x and CO, localized construction emissions exceedances for NO ₂ and PM ₁₀); Not Adverse (health risk assessment for construction emissions); Beneficial (operational criteria pollutant and GHG emission reductions)	Adverse (regional construction emissions exceedances for NO _x and CO, localized construction emissions exceedances for NO ₂ and PM ₁₀); Not Adverse (health risk assessment for construction emissions); Beneficial (operational criteria pollutant and GHG emission reductions)	Adverse (regional construction emissions exceedances for NO _x and CO, localized construction emissions exceedances for NO ₂ and PM ₁₀); Not Adverse (health risk assessment for construction emissions); Beneficial (operational criteria pollutant and GHG emission reductions)	Adverse (regional construction emissions exceedances for NO _x and CO, localized construction emissions exceedances for NO ₂ and PM ₁₀); Not Adverse (health risk assessment for construction emissions); Beneficial (operational criteria pollutant and GHG emission reductions)	Adverse (regional construction emissions exceedances for NO _x and CO, localized construction emissions exceedances for NO ₂ and PM ₁₀); Not Adverse (health risk assessment for construction emissions); Beneficial (operational criteria pollutant and GHG emission reductions)

Environmental Topic	Refined SR14	SR14A	E1	E1A	E2	E2A
Noise and Vibration ³	Adverse (construction noise, spoils hauling, and operational train noise); Not Adverse (construction vibration)	Adverse (construction noise and operational train noise); Not Adverse (spoils hauling noise and construction vibration)	Adverse (construction noise, spoils hauling, and operational train noise); Not adverse (construction vibration)	Adverse (construction noise, spoils hauling, and operational train noise); Not Adverse (construction vibration)	Adverse (construction noise, spoils hauling, and operational train noise); Not Adverse (construction vibration)	Adverse (construction noise, spoils hauling, and operational train noise); Not Adverse (construction vibration)
Electromagnetic Interference and Electromagnetic Fields	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse
Hydrology and Water Resources	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse
Hazardous Materials and Wastes	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse
Safety and Security	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse
Socioeconomics and Communities ⁴	Adverse (business displacements) Not Adverse (residential displacements, community cohesion)	Potentially Adverse (business displacements) Not Adverse (residential displacements, community cohesion)	Adverse (business displacements) Not Adverse (residential displacements, community cohesion);	Adverse (business displacements) Not Adverse (residential displacements, community cohesion);	Adverse (business displacements and community cohesion) Not Adverse (residential displacements)	Adverse (business displacements and community cohesion) Not Adverse (residential displacements)
Parks, Recreation, and Open Space	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse

Environmental Topic	Refined SR14	SR14A	E1	E1A	E2	E2A
Aesthetics and Visual Quality ⁵	Adverse (permanent construction effects) Not Adverse (temporary construction effects, operations effects)	Adverse (2 KVPs) Not Adverse (16 KVPs, temporary construction effects, operations effects)	Adverse (permanent construction effects) Not Adverse (temporary construction effects, operations effects)	Adverse (permanent construction effects) Not Adverse (temporary construction effects, operations effects)	Adverse (permanent construction effects) Not Adverse (temporary construction effects, operations effects)	Adverse (permanent construction effects) Not Adverse (temporary construction effects, operations effects)
Cultural Resources	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse	Not Adverse

¹ The Refined SR14 and SR14A Build Alternatives would adversely affect roadways and intersections from spoils hauling in the following EJ census block groups: **Sylmar**: 60371061122, 60371061131, **Pacoima**: 60371042042, 60371212102, 60371048221, and **Sun Valley**: 60371021051, 60371212222. The E1 and E1A Build Alternatives would adversely affect roadways and intersections from spoils hauling in the following EJ census block groups: **Pacoima**: 60371042042, 60371212102, 60371048221, and **Sun Valley**: 60371021051, 60371212222. The E2 and E2A Build Alternatives would adversely affect roadways an intersections from spoils hauling in the following EJ census block groups: **Lake View Terrace**: 060371032001, and **Sun Valley**: 60371212222.

² The Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives would have adverse effects from localized construction emissions in the following census block groups: **Sun Valley**: 60371021051, 60371212222.

³ The Refined SR14, E1, and E1A Build Alternatives would have adverse effects from operational train noise in the following EJ census block groups: **South of Palmdale**: 60379107071, and **Sun Valley**: 6037121210. The SR14A Build Alternative would have adverse effects from operational train noise in the following EJ census block groups: **Sun Valley**: 6037121210. The E2 and E2A Build Alternatives would have adverse effects from operational train noise in the following EJ census block groups: **South of Palmdale**: 60379107071, and **Lake View Terrace**: 60371032001.

⁴ The Refined SR14, SR14A, E1, and E1A Build Alternatives would have adverse effects from business displacements in the following EJ census block groups: **Pacoima**: 60371047031, 60371042041 (Window Option W2 Only); and **Sun Valley**: 60371222002, 60371212101, 60371212221, and 60371221223. However, as noted in the Chapter 3.12 Socioeconomics analysis of Impact SOCIO#6, while the direct community would have an insufficient number of potential replacement sites to accommodate all business displacements, there would likely be sufficient replacement sites to accommodate all business displacements within the Expanded Commercial and Industrial Resource Areas and this Area would be sufficient to accommodate displacements in the SR14A Build Alternative. Businesses that are unique to their geographic area and businesses with specific siting requirements would have the most difficulty relocating.

The E2 and E2A Build Alternatives would have adverse effects from business displacements in the following EJ census block groups: **Sun Valley**: 60371211023 and 60371222002; they would also have adverse effects from loss of cohesion in the following EJ census block group: **Lake View Terrace**: 60371032001.

⁵ The Refined SR14, SR14A, E1, and E1A Build Alternatives would result in adverse visual quality effects in the following EJ census block group: **South of Palmdale**: census block group 60379107071. The E2 and E2A Build Alternatives would result in adverse visual quality effects in the following EJ census block groups: **South of Palmdale**: census block group 60379107071 and **Lake View Terrace**: 60371032001

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5.7.2.1 Transportation

Construction

All Six Build Alternatives

A construction-period effect on roadway segments and intersections would occur as a result of 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). Construction would occur throughout the alignment and pass through several geographical regions containing EJ populations. Construction-related disruptions caused by the project, such as temporary lane or road closures, underground utility work, or truck traffic, would result in decreases to level of service (LOS) on roadway segments and intersections. Construction-related effects on roadway segments and intersections would occur surrounding the station area in the Burbank Subsection, which contains several EJ census block groups. These effects would result in temporary increases in automobile delay and travel times in these areas (refer to Section 3.2, Transportation, for further discussion of effects on roadways and intersections during construction).

The project would incorporate TR-IAMF#2, TR-IAMF#6, and TR-IAMF#7, which will require preparation and implementation of a Construction Transportation Plan to minimize construction-related traffic, restrict construction material deliveries during peak-hour travel times, and ensure construction-related travel use appropriate truck routes for delivering materials. Additionally, implementation of Mitigation Measure TRA-MM#1 will add travel lanes to affected roadway segments, thereby increasing capacity and improving LOS to adequate levels. Mitigation Measures TRA-MM#2 through TRA-MM#6 and TRA-MM#8 would minimize affected intersections through modified signal timing and phasing, as well as widening, restriping, and reconfiguring intersections, such that intersection operations improve to an adequate LOS.

Considering both the IAMFs incorporated into the project and implementation of the above-mentioned mitigation measures, adverse effects on roadways and intersections from construction would not occur under any of the Build Alternatives. Therefore, construction-period effects on roadway segments and intersections are not discussed further in this chapter.

Transit and Nonmotorized Modes of Transportation

All Six Build Alternatives

Construction-period effects on transit services and nonmotorized modes of transportation would include effects on circulation, transit routes, pedestrian and bicycle movement, and access during construction of the project. Construction-related effects on transit services and nonmotorized modes of transportation would generally occur within EJ census block groups, specifically in areas surrounding the station area in the Burbank Subsection. Effects within the Central Subsection would be limited, given the relative lack of transit services in more rural and suburban areas. However, as described in Section 3.2, Transportation, effects on transit services and nonmotorized modes of transportation would be mitigated and would not result in an adverse effect. Because no adverse effects on transit services and nonmotorized modes of transportation were identified during the construction period, this resource topic is not discussed further.

Spoils Hauling

All Six Build Alternatives

Construction-period earthwork and tunneling activities associated with each of the Build Alternatives would generate substantial spoils material (rock and dirt). This spoils material would be hauled via truck to various disposal sites in the Palmdale to Burbank region, which would affect the regional transportation network, causing longer travel times and inconvenience for residents. Table 5-6 through Table 5-11 list the roadway segments and intersections that would be affected under each of the six Build Alternatives. Each of the affected roadways and intersections are within the Central Subsection.

Table 5-6 Roadway Segments and Intersections Affected by Spoils Hauling Prior to Mitigation – Refined SR14 Build Alternative

Roadway Segment/Intersection	Routing Direction	AM/PM Peak Hour
Roadway Segments		
Sierra Highway – West of Pearblossom Highway	Northbound	AM/PM
Sierra Highway – West of Red Rover Mine Road	Northbound	AM
Hubbard Street – North of I-210 WB Ramps	Northbound	AM
Laurel Canyon Road – East of Osborne Street	Northbound	PM
Hollywood Way – South of I-5 SB Ramps	Northbound	AM/PM
Sierra Highway – West of Pearblossom Highway	Southbound	AM/PM
Sierra Highway – West of Red Rover Mine Road	Southbound	AM/PM
Hubbard Street – North of I-210 WB Ramps	Southbound	AM
Laurel Canyon Road – East of Osborne Street	Southbound	PM
Hollywood Way – South of I-5 SB Ramps	Southbound	AM/PM
Intersections		
Sierra Highway at SR 14 SB Ramps	Northbound	PM
SR 14 SB Off-Ramp at Sierra Highway	Northbound	AM
Ward Road at SR 14 SB On-Ramp/Sierra Highway	Northbound	PM
Hubbard Street at I-210 EB Ramps	Northbound	AM
I-210 WB Ramps at Paxton Street	Northbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Northbound	AM/PM
Branford Street at San Fernando Road	Northbound	PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Northbound	PM
Hollywood Way at I-5 SB Ramps	Northbound	AM/PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Southbound	AM
SR 14 SB Off-Ramp at Sierra Highway	Southbound	AM
Ward Road at SR 14 SB On-Ramp/Sierra Highway	Southbound	PM
Hubbard Street at I-210 EB Ramps	Southbound	AM
I-210 WB Ramps at Paxton Street	Southbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Southbound	AM/PM
Branford Street at San Fernando Road	Southbound	PM
Spoils Area 44 Access Road at San Fernando Road	Southbound	AM/PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Southbound	AM/PM
Hollywood Way at I-5 SB Ramps	Southbound	AM

EB = eastbound; EJ = Environmental Justice; I = Interstate Highway; NB = northbound; SB = southbound; SR = State Route; WB = westbound

Table 5-7 Roadway Segments and Intersections Affected by Spoils Hauling Prior to Mitigation – SR14A Build Alternative

Roadway Segment/Intersection	Routing Direction	AM/PM Peak Hour
Roadway Segments		
Sierra Highway – West of Pearblossom Highway	Northbound	AM/PM
Hubbard Street – North of I-210 WB Ramps	Northbound	AM
Laurel Canyon Road – East of Osborne Street	Northbound	PM
Hollywood Way – South of I-5 SB Ramps	Northbound	AM/PM
Sierra Highway – West of Pearblossom Highway	Southbound	AM/PM
Hubbard Street – North of I-210 WB Ramps	Southbound	AM
Laurel Canyon Road – East of Osborne Street	Southbound	PM
Sierra Highway – North of Angeles Forest Highway	Southbound	PM
Intersections		
Sierra Highway at SR 14 SB Ramps	Northbound	PM
Hubbard Street at I-210 EB Ramps	Northbound	AM
I-210 WB Ramps at Paxton Street	Northbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Northbound	AM/PM
Branford Street at San Fernando Road	Northbound	PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Northbound	PM
Hollywood Way at I-5 SB Ramps	Northbound	AM/PM
Crown Valley Road & SR 14 WB Ramps	Northbound	AM/PM
Crown Valley Road & SR 14 EB Ramps	Northbound	PM
Crown Valley Road & Antelope Woods Road	Northbound	AM/PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Southbound	AM
Sierra Highway at SR 14 SB Ramps	Southbound	PM
Hubbard Street at I-210 EB Ramps	Southbound	AM
I-210 WB Ramps at Paxton Street	Southbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Southbound	AM/PM
Branford Street at San Fernando Road	Southbound	PM
Spoils Area 44 Access Road at San Fernando Road	Southbound	AM/PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Southbound	AM/PM
Hollywood Way at I-5 SB Ramps	Southbound	AM
Crown Valley Road & SR 14 WB Ramps	Southbound	AM/PM
Crown Valley Road & Antelope Woods Road	Southbound	AM/PM

EB = eastbound; EJ = Environmental Justice; I = Interstate Highway; NB = northbound; SB = southbound; SR = State Route; WB = westbound

Table 5-8 Roadway Segments and Intersections Affected Spoils Hauling Prior to Mitigation – E1 Build Alternative

Roadway Segment/Intersection	Routing Direction	AM/PM Peak Hour
Roadway Segments		
Sierra Highway – West of Pearblossom Highway	Northbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Northbound	AM/PM
Sierra Highway – West of Soledad Canyon Road	Northbound	PM
Sierra Highway – North of Placerita Canyon Road	Northbound	AM
Laurel Canyon Road – East of Osborne Street	Northbound	PM
Soledad Canyon Road – South of Sierra Highway	Northbound	AM/PM
Placerita Canyon Road – East of SR 14 NB Ramps	Northbound	AM
Hollywood Way – South of I-5 SB Ramps	Northbound	AM/PM
Sierra Highway – West of Pearblossom Highway	Southbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Southbound	AM/PM
Sierra Highway – West of Soledad Canyon Road	Southbound	PM
Sierra Highway – North of Placerita Canyon Road	Southbound	AM
Laurel Canyon Road – East of Osborne Street	Southbound	PM
Soledad Canyon Road – South of Sierra Highway	Southbound	AM/PM
Placerita Canyon Road – East of SR 14 NB Ramps	Southbound	AM
Intersections		
Sierra Highway at SR 14 SB Ramps	Northbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Northbound	AM/PM
I-210 WB Ramps at Paxton Street	Northbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Northbound	AM/PM
Branford Street at San Fernando Road	Northbound	PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Northbound	PM
Hollywood Way at I-5 SB Ramps	Northbound	AM
Sierra Highway at Spoils Area 21/22 Access Road	Northbound	AM/PM
Sierra Highway at Spoils Area 22 Access Road	Northbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Northbound	AM/PM
Sierra Highway at Placerita Canyon Road	Northbound	AM/PM
Hollywood Way at I-5 SB Ramps	Northbound	AM/PM
Sierra Highway at SR 14 SB Ramps	Southbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Southbound	AM/PM
I-210 WB Ramps at Paxton Street	Southbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Southbound	AM/PM

Roadway Segment/Intersection	Routing Direction	AM/PM Peak Hour
Branford Street at San Fernando Road	Southbound	PM
Spoils Area 44 Access Road at San Fernando Road	Southbound	AM/PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Southbound	AM/PM
Hollywood Way at I-5 SB Ramps	Southbound	AM/PM
Sierra Highway at Spoils Area 21/22 Access Road	Southbound	AM/PM
Sierra Highway at Spoils Area 22 Access Road	Southbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Southbound	AM/PM
Sierra Highway at Placerita Canyon Road	Southbound	AM/PM

EJ = Environmental Justice; I = Interstate; NB = northbound; SB = southbound; SR = State Route; WB = westbound

Table 5-9 Roadway Segments and Intersections Affected Spoils Hauling Prior to Mitigation – E1A Build Alternative

Roadway Segment/Intersections	Routing Direction	AM/PM Peak Hour
Roadway Segments		
Sierra Highway – West of Pearblossom Highway	Northbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Northbound	PM
Sierra Highway – West of Soledad Canyon Road	Northbound	PM
Sierra Highway – North of Placerita Canyon Road	Northbound	AM
Laurel Canyon Road – East of Osborne Street	Northbound	PM
Soledad Canyon Road – South of Sierra Highway	Northbound	AM/PM
Placerita Canyon Road – East of SR 14 NB Ramps	Northbound	AM
Hollywood Way – South of I-5 SB Ramps	Northbound	AM/PM
Sierra Highway – West of Pearblossom Highway	Southbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Southbound	PM
Sierra Highway – West of Soledad Canyon Road	Southbound	PM
Sierra Highway – North of Placerita Canyon Road	Southbound	AM
Laurel Canyon Road – East of Osborne Street	Southbound	PM
Soledad Canyon Road – South of Sierra Highway	Southbound	AM/PM
Placerita Canyon Road – East of SR 14 NB Ramps	Southbound	AM
Intersections		
Sierra Highway at SR 14 SB Ramps	Northbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Northbound	AM/PM
I-210 WB Ramps at Paxton Street	Northbound	AM/PM
Branford Street at San Fernando Road	Northbound	PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Northbound	PM

Roadway Segment/Intersections	Routing Direction	AM/PM Peak Hour
Hollywood Way at I-5 SB Ramps	Northbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Northbound	AM/PM
Sierra Highway at Placerita Canyon Road	Northbound	AM/PM
Sierra Highway at SR 14 SB Ramps	Southbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Southbound	AM/PM
I-210 WB Ramps at Paxton Street	Southbound	AM/PM
Foothill Boulevard at Spoils Area 15 Access Road 2	Southbound	AM/PM
Branford Street at San Fernando Road	Southbound	PM
Spoils Area 44 Access Road at San Fernando Road	Southbound	AM/PM
Lankershim Boulevard at Telfair Avenue/Pendleton Street	Southbound	AM/PM
Hollywood Way at I-5 SB Ramps	Southbound	AM/PM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Southbound	AM/PM
Sierra Highway at Placerita Canyon Road	Southbound	AM/PM

EJ = Environmental Justice; I = Interstate; NB = northbound; SB = southbound; SR = State Route; WB = westbound

Table 5-10 Roadway Segments and Intersections Affected Spoils Hauling Prior to Mitigation – E2 Build Alternative

Roadway Segment/Intersections	Routing Direction	AM/PM Peak Hour
Roadway Segments		
Sierra Highway – West of Pearblossom Highway	Northbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Northbound	PM
Sierra Highway – West of Soledad Canyon Road	Northbound	PM
Soledad Canyon Road – South of Sierra Highway	Northbound	AM/PM
Sunland Boulevard – West of Fenwick Street	Northbound	AM/PM
Hollywood Way – South of I-5 SB Ramps	Northbound	AM/PM
Sierra Highway – West of Pearblossom Highway	Southbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Southbound	AM/PM
Sierra Highway – West of Soledad Canyon Road	Southbound	PM
Soledad Canyon Road – South of Sierra Highway	Southbound	AM/PM
Intersections		
Sierra Highway at SR 14 NB On-Ramp	Northbound	PM
Sierra Highway at SR 14 SB Ramps	Northbound	AM/PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Northbound	AM/PM
Hollywood Way at I-5 SB Ramps	Northbound	AM
Sierra Highway at Spoils Area 21/22 Access Road	Northbound	AM/PM
Sierra Highway at Spoils Area 22 Access Road	Northbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Northbound	AM/PM

Roadway Segment/Intersections	Routing Direction	AM/PM Peak Hour
Sierra Highway at SR 14 SB Ramps	Southbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles	Southbound	AM/PM
Hollywood Way at I-5 SB Ramps	Southbound	AM
Sierra Highway at Spoils Area 21/22 Access Road	Southbound	AM/PM
Sierra Highway at Spoils Area 22 Access Road	Southbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Southbound	AM/PM

EJ = Environmental Justice; I = Interstate; NB = northbound; SB = southbound; SR = State Route

Table 5-11 Roadway Segments and Intersections Affected Spoils Hauling Prior to Mitigation – E2A Build Alternative

Roadway Segment/Intersections	Routing Direction	AM/PM Peak Hour
Roadway Segments		
Sierra Highway – West of Pearblossom Highway	Northbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Northbound	PM
Sierra Highway – West of Soledad Canyon Road	Northbound	PM
Soledad Canyon Road – South of Sierra Highway	Northbound	AM/PM
Sunland Boulevard – West of Fenwick Street	Northbound	AM/PM
Hollywood Way – South of I-5 SB Ramps	Northbound	AM/PM
Sierra Highway – West of Pearblossom Highway	Southbound	AM/PM
Sierra Highway – North of Angeles Forest Highway	Southbound	AM/PM
Sierra Highway – West of Soledad Canyon Road	Southbound	PM
Soledad Canyon Road – South of Sierra Highway	Southbound	AM/PM
Intersections		
Sierra Highway at SR 14 SB Ramps	Northbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles Highway	Northbound	AM/PM
Hollywood Way at I-5 SB Ramps	Northbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Northbound	AM/PM
Sierra Highway at SR 14 SB Ramps	Southbound	PM
Sierra Highway at SR 14 NB Off-Ramp/Angeles	Southbound	AM/PM
Hollywood Way at I-5 SB Ramps	Southbound	AM
Soledad Canyon Road/SR 14 NB Ramps at Sierra Highway	Southbound	AM/PM

EJ = Environmental Justice; I = Interstate; NB = northbound; SB = southbound; SR = State Route

Traffic congestion on the roadway segments listed in Table 5-6 through Table 5-11 would occur in both EJ and non-EJ census block groups. Most roadway segments and intersections affected by spoils hauling trips would be in rural areas that would be relatively unaffected by past, present, and reasonably foreseeable future projects.

Implementation of TR-IAMF#2, TR-IAMF#6, and TR-IAMF#7 will require a Construction Transportation Plan, limit spoils hauling hours, and establish spoils hauling routes to minimize transit service effects during spoils hauling. TR-MM#12: Prepare a Transportation Construction Management Plan will require the construction contractor to develop a plan to manage circulation

and connections for modes of travel during the construction duration. It will require a schedule for the majority of construction-related travel during off-peak hours and will require the contractor to relocate spoils collection areas and access to minimize delays during peak hours. Additionally, implementation of SOCIO-IAMF#1 would further reduce spoils hauling effects by requiring the development of a Community Management Plan to address traffic circulation during spoils hauling activities.

For the Refined SR14 Build Alternative, after the implementation of IAMFs and mitigation measures, 57 percent of traffic congestion along roadways from spoils hauling would occur in low-income populations, and 57 percent of adverse effects would occur in minority populations, respectively. The traffic congestion would impact Pacoima along Hubbard Street north of the I-280 WB ramps (census block group 60371061131) and Sylmar along Laurel Canyon Road east of Osborne Street (census block group 60371048221). The spoils hauling would cause 43 percent of intersection delays in low-income communities, and 71 percent in minority communities. Spoils hauling would cause intersection delays in minority communities in Sylmar at the Hubbard Street at I-210 EB Ramps intersection (census block group 60371061122); in Pacoima at the I-210 EB Ramps at Paxton Street intersection (census block group 60371042042) and Branford Street at San Fernando Road intersection (census block group 60371212102); and in Sun Valley at the Spoils Area 44 Access Road at San Fernando Road intersection (census block group 60371212222), Hollywood Way at I-5 SB Ramps intersection (census block group 60371212222), and Lankershim Boulevard at Telfair Avenue/Pendleton Street intersection (census block group 60371021051). Intersection delays in low-income communities would occur in Pacoima at Branford Street at San Fernando Road intersection (census block group 60371212102), and in Sun Valley at the Spoils Area 44 Access Road at San Fernando Road intersection (census block group 60371212222), Hollywood Way at I-5 SB Ramps intersection (census block group 60371212222), and Lankershim Boulevard at Telfair Avenue/Pendleton Street intersection (census block group 60371021051). The Refined SR14 Build Alternative would not cause a disproportionately high and adverse impact on traffic congestion or intersection delays from spoils hauling in minority EJ communities because the share of impacts would not exceed the reference community share. Nonetheless, the Refined SR14A Build Alternative spoils hauling could cause disproportionately high and adverse effects on low-income communities from traffic congestion and intersection delay, because the share of low-income communities experiencing post-mitigation effects is greater than their reference community share.

For the SR14A Build Alternative (Preferred Alternative), after the implementation of IAMFs and mitigation measures, 44 percent of traffic congestion effects along roadways from spoils hauling would occur in low-income communities, and 44 percent would occur in minority communities, respectively. Approximately 30 percent of intersection delays would occur in low-income communities, and 52 percent would occur in minority communities. The SR14 Build Alternative spoils hauling would impact the same roadways and intersections as the Refined SR14A Build Alternative spoils hauling. (The different percentages result from more non-EJ-community effects.) Thus, the SR14 Build Alternative spoils hauling would not cause a disproportionately high and adverse impact from traffic congestion or intersection delays in minority EJ communities because the share of impacts would not exceed the reference community share. Nonetheless, the SR14A Build Alternative spoils hauling could cause disproportionately high and adverse effects on low-income communities from traffic congestion and intersection delays, because the share of low-income communities experiencing post-mitigation effects is greater than their reference community share.

For the E1 Build Alternative, after the implementation of IAMFs and mitigation measures, 12 percent of traffic congestion effects along roadways from spoils hauling would occur in low-income populations, and 12 percent would occur in minority populations, respectively. Approximately 27 percent of intersection delays would occur in low-income communities, and 42 percent would occur in minority communities. E1 Build Alternative spoils hauling would cause congestion in Pacoima at Laurel Canyon Road east of Osborne Street (census block group 60371048221). It would cause intersection delays in Pacoima at the I-210 EB Ramps at Paxton Street intersection (census block group 60371042042) and Branford Street at San Fernando Road intersection (census block group 60371212102); and in Sun Valley at Hollywood Way at I-5

SB Ramps intersection (census block group 60371212222) and Lankershim Boulevard at Telfair Avenue/Pendleton Street intersection (census block group 60371021051). Thus, the E1 Build Alternative would not cause a disproportionately high and adverse impact on traffic congestion or intersection delays from spoils hauling in minority EJ communities because the share of impacts would not exceed the reference community share. The E1 Build Alternative spoils hauling would not cause disproportionately high and adverse effects on low-income communities from traffic congestion because the share of impacts would not exceed the reference community share. Nonetheless, the E1 Build Alternative spoils hauling could cause disproportionately high and adverse effects on low-income communities from intersection delays because the share of low-income communities experiencing post-mitigation effects is greater than their reference community share.

For the E1A Build Alternative, after the implementation of IAMFs and mitigation measures, 11 percent of traffic congestion along roadways from spoils hauling would occur in low-income populations, and 11 percent of adverse effects would occur in minority populations, respectively. Approximately 28 percent of adverse traffic effects at intersections would occur in low-income populations, and 44 percent of adverse effects would occur in minority populations. Affected roadways and intersections from spoils hauling for the E1A Build Alternative would be identical to the E1 Build Alternative. Thus, the E1A Build Alternative would not cause a disproportionately high and adverse impact on traffic congestion or intersection delays from spoils hauling in minority EJ communities because the share of impacts would not exceed the reference community share. The E1A Build Alternative spoils hauling would not cause disproportionately high and adverse effects on low-income communities from traffic congestion because the share of impacts would not exceed the reference community share. Nonetheless, the E1A Build Alternative could cause disproportionately high and adverse effects on low-income communities from spoils hauling intersection delays, because the share of low-income communities experiencing post-mitigation effects is greater than their reference community share.

For the E2 Build Alternative, after the implementation of IAMFs and mitigation measures, 14 percent of adverse traffic effects along roadways from spoils hauling would occur in low-income populations, and 0 percent of adverse effects would occur in minority populations, respectively. The E2 Build Alternative spoils hauling would cause traffic congestion in low-income EJ communities in Lake View Terrace along Sunland Boulevard west of Fenwick Street (census block group 60371032002). Approximately 15 percent of intersection delays would occur in low-income populations, and 15 percent of adverse effects would occur in minority populations. Adverse traffic effects on EJ populations from spoils hauling would occur in Sun Valley at the Hollywood Way at I-5 SB Ramps intersection (census block group 60371212222). No disproportionate effect on minority nor low-income communities was found for spoils hauling traffic effects on roadways and intersections, as the share of minority and low-income communities experiencing post-mitigation effects was not greater than their reference community share. As such, this effect would not be disproportionately high and adverse for the E2 Build Alternative.

For the E2A Build Alternative, after the implementation of IAMFs and mitigation measures, 13 percent of adverse traffic effects along roadways from spoils hauling would occur in low-income populations, and 0 percent of adverse effects would occur in minority populations, respectively. Approximately 16 percent of adverse traffic effects at intersections would occur in low-income populations, and 16 percent of adverse effects would occur in minority populations. Affected roadways and intersections from spoils hauling for the E2A Build Alternative would be identical to the E2 Build Alternative. No disproportionate effect on minority nor low-income communities was found for spoils hauling traffic effects, as the share of minority and low-income communities experiencing post-mitigation effects was not greater than their reference community share. As such, this effect would not be disproportionately high and adverse for the E2A Build Alternative.

As described above, the spoils hauling for Refined SR14 and SR14A Build Alternatives would have potential disproportionately high and adverse traffic congestion effects on low-income communities. The spoils hauling for the Refined SR14, SR14A, E1, and E1A would have potential disproportionately high and adverse intersection-delay effects on low-income communities.

Therefore, the Authority will use EJ-specific IAMFs and mitigation measures to reduce the potential for disproportionately high and adverse effects on EJ communities (please refer to Section 5.8 for descriptions of EJ-specific IAMFs and mitigation measures). Implementation of EJ-IAMF#1 will require the Authority to create an ombudsman position to address the needs of EJ communities. The Authority's EJ Ombudsman will provide a point of contact for EJ communities to provide feedback on travel impacts. The EJ Ombudsman will have the authority to stop work if necessary, and that will allow it to seek additional measures to further reduce travel congestion and intersection delay impacts. The Authority's EJ ombudsman's responsibilities shall also obtain community-specific feedback on plans not typically reviewed by the general public, including the Transportation Construction Management Plan (TR-IAMF#12) and Construction Management Plan (SOCIO-IAMF#1), in order to minimize adverse effects on EJ populations including adverse effects from spoils hauling.

The Authority expects this early consultation with EJ communities to change the spoils haul-routes in ways that would decrease the traffic congestion and intersection delays in those communities. The current construction traffic conclusions make assumptions about where construction trucks will route, but actual construction traffic routes will not be determined until closer to construction, by the contractor. By consulting with the EJ communities, EJ-IAMF#1 allows the disproportionately affected EJ community to comment and potentially to offer suggestions for mitigating the traffic congestion and intersection delay effects (by, for example, identifying alternate routes that would not have such an impact), or by requesting changes in time-of-day for spoils hauling. The Authority expects that receiving EJ-community input on these plans, which do not usually obtain community input, would eliminate any disproportionately high and adverse effects on these EJ communities.

The Authority has refined the assumptions for spoils hauling trips since publication of the Draft EIR/EIS. In addition to the previously evaluated spoils hauling routes, project construction will require spoils hauling trips to the Buttonwillow Landfill in Kern County, which is 90 miles northwest of the Palmdale to Burbank Project Section. Based on the existing volume of traffic in the community of Buttonwillow, the additional traffic from all Build Alternatives' spoils hauling would not substantially and adversely affect existing conditions in Buttonwillow because it would not lower the level of service at existing roadways and intersections (See Chapter 3.2 Transportation, Section 3.2.4.3., Table 3.2-1 and Table 3.2-2, Footnote 7). As such, the Build Alternatives' spoils hauling trips are not anticipated to adversely affect the adjacent community of Buttonwillow, which is 17 percent minority and 22 percent low-income (Census Bureau). Additionally, while spoils hauling trips to the Buttonwillow Landfill are assumed to follow the evaluated spoils hauling routes through Buttonwillow, final routes will be determined in the future. Consistent with TR-IAMF#12 and SOCIO-IAMF#1, the Authority will draft a Transportation Construction Management Plan and Construction Management Plan with proposed haul routes and seek input from affected communities to reduce or mitigate effects on communities. Therefore, no additional effects to roadway segments or intersections from the spoils hauling route to the Buttonwillow Landfill are anticipated to occur. Please refer to Section 3.2.5.6 in Section 3.2, Transportation, and Impact AQ#2 in Section 3.3, Air Quality and Global Climate Change, for further discussion regarding the potential for spoils hauling trips to Buttonwillow Landfill to result in traffic and air quality effects.

Operations

All Six Build Alternatives

The anticipated 2040 operational effects would only occur at the Burbank Airport Station area where the project would generate new transportation demands. Therefore, this operations discussion focuses on the Burbank Airport Station area. Project operations would cause an adverse effect if it would permanently decrease LOS at roadway segments and intersections, increasing congestion and delays and causing longer travel times and inconvenience for residents (refer to Section 3.2, Transportation, for further discussion of effects on roadways and intersections during operations). While the affected areas of Burbank contain several EJ census block groups, implementation of Mitigation Measures TRA-MM#1 through TRA-MM#8 described above would reduce the effects on roadway segments and intersections in the station areas,

ensuring that 2040 operations will maintain an adequate LOS and would not result in increased congestion and travel delay at roadway segments and intersections in the station area. Because there would be no adverse traffic effects after mitigation measures are applied, this resource topic is not discussed further.

5.7.2.2 Air Quality and Global Climate Change

Construction

All Six Build Alternatives

Project construction would result in exceedances of air district and National Ambient Air Quality Standards for several criteria pollutants including NO_x and CO, resulting in the potential to cause regional air quality effects. Offsets purchased by the Authority would effectively mitigate effects caused by NO_x. Emissions offsets cannot be used to mitigate CO effects for general conformity; the South Coast Air Quality Management District would be required to determine whether the construction-period CO emissions for the Build Alternatives would result in a level of CO emissions that, together with all other emissions in the nonattainment area, would exceed the regional emissions budget specified in their planning documents (however, as discussed in Impact AQ#5 in Section 3.3, Air Quality and Global Climate Change, localized CO emissions from construction would not result in any exceedances of the state or federal air quality standard; therefore, there would not be any localized impacts from CO). Air quality effects from project construction would be temporary in nature. While construction would take place in both EJ and non-EJ communities along the entire alignment, all communities could be affected by regional criteria emissions, and sensitive receptors in these communities could be affected by localized criteria emissions.

The project would be constructed with all feasible standard on-site control measures and HSR IAMFs to reduce emissions and minimize effects on air quality. Fugitive dust emissions will be reduced through implementation of a dust control plan (AQ-IAMF#1). In addition, the contractor will use low-VOC paints to limit the emissions of VOCs, which contribute to ozone formation (AQ-IAMF#2). The contractor will use renewable diesel fuel to limit criteria pollutant exhaust emissions from off-road and on-road construction equipment (AQ-IAMF#3). Furthermore, the use of Tier 4 off-road construction diesel equipment (AQ-IAMF#4) and model year 2020 or newer on-road trucks (AQ-IAMF#5) would reduce exhaust-related pollutants from construction equipment, and AQ-IAMF#6 would reduce effects associated with new concrete batch plants. Implementation of these IAMFs will ensure project construction would not exceed applicable thresholds for air quality health risks, including cancer risk and chronic and acute noncancer health impacts (see Impact AQ#4 conclusion). However, even with the application of IAMFs, exceedances of applicable CAAQS and NAAQS pollutant thresholds would still occur.

Mitigation Measure AQ-MM#3 would reduce the effects of construction emissions through use of zero emission or net-zero emission on-road vehicles and off-road equipment. However, until the final construction-period emissions calculations can be incorporated, it is premature to determine that the six Build Alternatives would expose sensitive receptors to substantial pollutant concentrations that would exceed the applicable NAAQS and CAAQS within certain construction areas.

As described in Section 3.3, Air Quality and Global Climate Change, six discrete areas (or “cases”) were selected for localized construction air quality analysis for the project. These cases were designed to represent reasonably foreseeable significant effects, referred to here as the “worst-case” in terms of construction-related air quality and health risk impacts, typically those that have a large amount of construction activity with exhaust vented to the air near sensitive receptors. The locations of the six cases are presented on Figure 3.3-3 in Section 3.3, Air Quality and Global Climate Change. Three of the six cases would be located in EJ populations (Case 5,

Case 7, and Case 8 are located in Lake View Terrace, Sun Valley, and Pacoima, respectively).⁹ As discussed in Impact AQ#5 and depicted in Table 3.3-36 and Table 3.3-37 in Section 3.3, Air Quality and Global Climate Change, the project would result in the following localized emissions exceedances of National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS):

- NO₂ in the Case 7 area (NAAQS) (all six Build Alternatives)
- PM₁₀ in the Case 7 area (CAAQS) (all six Build Alternatives)
- PM₁₀ in the Case 6 area (CAAQS) (E2 and E2A Build Alternatives only)
- PM₁₀ in the Case 5 area (CAAQS) (E2 and E2A Build Alternatives only)

As described above, the Refined SR14, SR14A, E1, and E1A Build Alternatives would exceed applicable thresholds for NO₂ and PM₁₀ only in the Case 7 area. After the implementation of IAMFs and mitigation measures described above, only two receptors located in EJ communities would experience localized criteria pollutant exceedances: SC Fuels, a petroleum distribution company (census block group 60371219003), and another industrial building (census block group 60371211021). Both receptors are located in Sun Valley at 8620 San Fernando Road, and 11871 Sheldon Street, respectively).

For Case 7, the Authority used EPA's AERMOD model, and it modeled land uses within 300 meters (984 feet) of the project's construction areas. The analysis used a grid with 50 meter (164 feet) spacing and thereby modeled 3,913 receptors to assess the criteria pollutant emissions concentrations associated with the on-site construction activities. Of these modeled areas, one location (8620 San Fernando Road, Sun Valley, CA) would be exposed to emission concentrations exceeding the State's annual PM₁₀ standard and the federal one-hour NO₂ standard. The second location (11871 Sheldon Street, Sun Valley, CA) would be exposed to emission concentrations exceeding the State's annual PM₁₀ standard. Commercial uses are located at both modeled receptors. The emission concentrations at all other modeled receptors would be below the federal and State ambient air quality standards. Due to the receptor spacing, other land uses located within 25 to 50 meters (82 to 164 feet) could be exposed to exceedances of the criteria pollutant standards. However, all land uses located within that area are also commercial. There are no sensitive receptors such as residences, schools, hospitals, churches, or parks located within the impact areas of the two exceedances. As such, for the Refined SR14, SR14A, E1, and E1A Build Alternatives, no disproportionately high and adverse effects on EJ communities are anticipated, as all localized exceedances are in areas without sensitive receptors and consistent with the conclusions of the air quality health impacts risk assessment in Section 3.3, Air Quality and Global Climate Change.

The E2 and E2A Build Alternatives would additionally exceed applicable thresholds for PM₁₀ in the Case 5 and Case 6 areas, resulting in adverse localized air quality effects. Of these, the Case 5 area would be located in EJ communities. Therefore, localized air quality effects would potentially be disproportionately high and adverse on minority and low-income populations, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share.

Although some Build Alternatives show potential disproportionate air quality impacts and other Build Alternatives show no such impacts to sensitive receptors, the Authority will implement EJ-specific IAMFs and mitigation measures for all Build Alternatives in communities where localized exceedances are estimated at the time of the Authority's update estimate of construction emissions, consistent with EJ-MM#2.

These air quality specific environmental justice measures shall be implemented in order to reduce or avoid the potential for disproportionately high and adverse effects on EJ communities (please refer to Section 5.8 for descriptions of EJ-specific IAMFs and mitigation measures). EJ-IAMF#6 shall require the Authority to reference the EPA Air Sensor Toolbox and the South Coast Air

⁹ The Refined SR14 Build Alternative overlaps with Case 2 and Case 7 locations. The SR14A Build Alternative overlaps with the Case 2 and Case 7 locations. The E1 and E1A Build Alternatives overlap with the Case 7 and Case 8 locations. The E2 and E2A Build Alternatives overlap with the Case 4, Case 5, and Case 6 locations.

Quality Management District Air Quality Sensor Performance Evaluation Center to propose stationary outdoor air quality sensors and applicable monitoring locations within EJ communities to provide affected EJ communities with greater access to publicly accessible, local air quality data. Additionally, EJ-MM#2 shall require the Authority (1) to commit to submitting an updated construction phase air quality emissions estimate to the South Coast Air Quality Management District and (2) to prepare and publicly circulate an environmental justice analysis for that updated emissions estimate, if exceedances are shown in that updated analysis. The Authority expects that, by the time construction starts, zero-emission (ZE) and near-zero-emission (NZE) equipment will be more widely available for construction uses. Right now, AQ-MM#3 describes the Authority's goal to use that type of equipment, but AQ-MM#3 does not require it. The Authority consequently did not reduce the modeled emissions based on using any ZE or NZE equipment. Because of increased, future availability of that equipment, and because EJ-MM#2 will require some use of that equipment to reduce emissions in EJ communities, the Authority has concluded that the Refined SR14, SR14A, E1, and E1A Build Alternatives would not cause disproportionately high or adverse air quality effects on EJ communities during construction.

Operations

All Six Build Alternatives

As discussed in Section 3.3, Air Quality and Global Climate Change, operation of each of the six Build Alternatives is expected to reduce statewide emissions of all pollutants when compared to existing and future No Project baselines. Furthermore, mobile-source air toxic emissions would decrease commensurately with anticipated VMT reductions for all Build Alternatives (see Section 3.2, Transportation, for a full VMT discussion). Localized increases in CO emissions at certain intersections would occur near the Burbank Airport Station but would not exceed the 1-hour or 8-hour National Ambient Air Quality Standards and California Ambient Air Quality Standards. Furthermore, fugitive dust and odor-causing emissions would not pose a health risk to sensitive receptors under any of the Build Alternatives. Because there would be no adverse operational air quality or climate change effects, operation of the Build Alternatives would not result in any adverse effects on EJ populations related to air quality. As such, this resource topic is not discussed further.

5.7.2.3 Noise and Vibration

Construction

All Six Build Alternatives

As discussed in Section 3.4, Noise and Vibration, construction of each of the six Build Alternatives would entail 13 construction phases, and three adverse construction-period effects on sensitive receivers. As indicated in Section 3.4, adverse construction-period noise effects would occur within 110 and 176 feet of construction activities during the daytime, and within 348 and 555 feet of construction activities during the nighttime. Construction of the each of the six Build Alternatives would require spoil haul routes, which would also result in adverse noise effects in both EJ and non-EJ populations.

A conservative analysis would assume that construction noise will adversely affect EJ communities, as a significant amount of construction is proposed for all Build Alternatives in the communities of Pacoima, Sun Valley, near Lake Palmdale, and near Sylmar, which have substantial minority and/or low-income populations. The Authority's construction noise mitigation measures require that the Authority's Contractor not exceed construction noise thresholds.

Given the potential for these construction noise effects (absent mitigation), the Authority proposes IAMFs and mitigation measures to avoid, minimize, or mitigate those impacts to below the applicable federal guidance thresholds for construction noise impacts. N&V-IAMF#1 would avoid and/or minimize construction-related noise and vibration effects on sensitive receivers by requiring temporary noise barriers, routing of truck traffic away from residential streets, avoiding pile driving where possible, and other typical construction practices contained in the FTA and FRA guidelines for minimizing construction noise and vibration. Implementation of Mitigation

Measures N&V-MM#1 and N&V-MM#2 would further reduce construction-related noise and vibration to have no adverse effects on sensitive receptors by implementing a noise-monitoring program and requiring the contractors to meet project pile driving criteria. The noise monitoring program will describe how, during construction, the contractor will monitor construction noise and keep noise below the guidance thresholds (8-hour Leq dBA noise limits are 80 dBA during the day and 70 dBA at night for residential land use; 85 dBA both day and night for commercial land use; and 90 dBA both day and night for industrial land use) where a noise sensitive receptor is present. Although the contractor will be given flexibility in methods to not exceed noise limits, N&V-MM#1 requires that the Authority's contractor not exceed the above-identified noise thresholds. Mandating that construction noise will not reach severe levels with sensitive receptors provide additional safeguards to ensure that effects will not be disproportionately high and adverse.

Although N&V-MM#1 requires that construction noise not exceed thresholds, the Authority has conducted outreach to potentially affected EJ communities in the RSA including Pacoima and Sun Valley for their input on this and other mitigations. Comments were also received from members of these communities raising concerns regarding project noise effects during the Draft EIR/EIS comment period. Based on input received, the Authority proposes an additional mitigation measure, EJ-MM#1, which requires community review and input on proposed construction noise mitigations and monitoring measures. This measure augments opportunities for potentially affected and historically underrepresented communities to have adequate review, input, and monitoring opportunities on the Authority contractor's proposed construction noise mitigations and monitoring program. This measure provides additional safeguards to ensure that the Authority Contractor complies with existing construction noise mitigation measures which require that construction noise not exceed applicable thresholds.

Operations

All Six Build Alternatives

As discussed in Section 3.4, Noise and Vibration, operation of each of the six Build Alternatives would result in the following adverse operational effects prior to mitigation: traffic noise effects on sensitive receptors; noise effects from stationary sources; and operational train noise and vibration effects. Operation of each of the six Build Alternatives would entail traffic changes and would result in adverse operational traffic noise effects on sensitive receptors and would result in noise and vibration from stationary facilities (specifically, the Palmdale Station). This EIR/EIS does not include Palmdale Station impacts in its findings, as that Station was previously reviewed and approved in the Bakersfield to Palmdale EIR/EIS in 2021.

Implementation of Mitigation Measures N&V-MM#3, N&V-MM#7, and N&V-MM#8 would reduce the operational noise and vibration effects identified above by ensuring the effective implementation of noise and vibration reduction strategies, including sound walls and insulation. Mitigation Measure N&V-MM#6 will require further noise analysis following final design to ensure that the determinations in this analysis remain valid. Furthermore, the project would comply with all federal and state noise regulations.

Even with the incorporation of the above-mentioned measures, operational noise effects from trains would remain adverse. For the Refined SR14 Build Alternative, after installing noise barriers identified in N&V-MM#3, approximately 36 sensitive receptors along the Build Alternative alignment are estimated to experience residual severe noise from train operations. Of those 36 sensitive receptors, eight are in low-income and minority communities: six are located in Sun Valley (census block group 6037121210) and two are located south of Palmdale (census block group 60379107071). Therefore, 22 percent of residual-severe noise effects would occur in low-income census block groups, which shows a potential disproportionately high and adverse effect on low-income communities. No disproportionately high and adverse effect on minority communities would occur for operational noise. The effects would fall on the same eight census block groups, which was not greater than the minority communities' reference community share.

For the SR14A Build Alternative, after installing noise barriers identified in N&V-MM#3, approximately 11 sensitive receptors along the Build Alternative alignment are estimated to

experience residual severe noise from train operations. Of these 11 sensitive receptors, six are in low-income communities in Sun Valley (census block group 6037121210). That shows a potential disproportionately high and adverse effect on low-income communities because the number of residual severe noise effects (55 percent) would exceed the reference community share. For the SR14A Build Alternative, no disproportionately high and adverse effect on minority communities would occur for operational noise, since the 55 percent share of post-mitigation impacts on minority communities would not be greater than their reference community share.

For the E1 Build Alternative, after installing noise barriers identified in N&V-MM#3, approximately 53 sensitive receptors along the Build Alternative alignment are estimated to experience residual severe noise from train operations. Of those 53 sensitive receptors, 10 are located in EJ communities: six sensitive receptors are in Sun Valley (census block group 6037121210), and four are south of Palmdale (census block group 60379107071). Therefore, 19 percent of adverse effects would occur in low-income communities, which would exceed the reference community share. No disproportionate effect on minority communities would occur for operational noise. Those same communities qualify as minority communities, and the 19 percent share of minority communities experiencing post-mitigation effects was not greater than their reference community share.

For the E1A Build Alternative, after installing noise barriers identified in N&V-MM#3, approximately 37 sensitive receptors along the Build Alternative alignment are estimated to experience residual severe noise from train operations. Of those 37 sensitive receptors, the E1A Build Alternative would affect six sensitive receptors in Sun Valley (census block 6037121210), and one south of Palmdale (census block group 60379107071). Therefore, 19 percent of adverse effects would occur in low-income communities, which would exceed the reference community share and shows a potential disproportionately high and adverse effect on low-income communities. No disproportionately high and adverse effect on minority communities would occur for operational noise. Those same communities qualify as minority communities, and the share of minority communities experiencing post-mitigation effects was not greater than their reference community share.

For the E2 Build Alternative, after installing noise barriers identified in N&V-MM#3, approximately 69 sensitive receptors along the Build Alternative alignment are estimated to experience residual severe noise from train operations. Of those 69 sensitive receptors, the E2 Build Alternative would affect 21 sensitive receptors in Lake View Terrace (census block group 60371032001), and four south of Palmdale (census block group 60379107071). Therefore, 36 percent of adverse effects would occur in low-income communities, which exceeds the reference community share and shows a potential disproportionately high and adverse effect on low-income communities. No disproportionately high and adverse effect on minority communities would occur for operational noise. The E2 Build Alternative would adversely affect four sensitive receptors in minority communities south of Palmdale (census block group 60379107071). Therefore, the share of minority communities experiencing post-mitigation effects was not greater than their reference community share.

For the E2A Build Alternative, after installing noise barriers identified in N&V-MM#3, approximately 54 sensitive receptors along the Build Alternative alignment are estimated to experience residual severe noise from train operations. Of those 54 sensitive receptors, the E2A Build Alternative would adversely affect 21 sensitive receptors in Lake View Terrace (census block group 60371032001), and one south of Palmdale (census block group 60379107071). Therefore, 41 percent of adverse effects would occur in low-income communities, which exceeds the reference community share, showing a potential disproportionately high and adverse effect on low-income communities. No disproportionately high and adverse effect on minority communities was found for operational noise. The E2A Build Alternative would adversely affect one sensitive receptor in a minority community south of Palmdale (census block group 60379107071). That share of minority communities experiencing post-mitigation effects was not greater than their reference community share.

EJ-IAMF#1 will further reduce train-operation impacts on EJ communities by creating the Authority's EJ ombudsman and Contractor's EJ liaison positions. In particular, those positions'

responsibilities and duties will require consultation with EJ communities on the Operations Noise and Vibration Technical Memorandum (NV-IAMF#1). Usually, communities do not have direct input into these types of plans. Giving EJ communities the opportunity to provide direct feedback on noise barriers, building sound insulation, and noise easements would likely reduce the impacts on EJ communities to below disproportionately high and adverse effects. The SR14A Build Alternative, for example, would adversely affect six sensitive receptors located within low-income communities after implementation of the proposed noise barriers. Specific feedback from community members would likely lead to measures that would reduce those impacts, like installing new windows or doors on the specific sensitive receptors. For the Refined SR14, E1, E1A, E2, and E2A Build Alternatives, the numbers are similarly manageable. EJ-IAMF#5 will also benefit EJ communities. It will require the Contractor's EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. Nevertheless, some residual disproportionately high and adverse effects on low-income communities may remain.

5.7.2.4 Electromagnetic Interference and Electromagnetic Fields

Construction

All Six Build Alternatives

As discussed in Section 3.5, Electromagnetic Interference and Electromagnetic Fields, implementation of each of the six Build Alternatives would require construction activities and equipment that may pose a risk of EMI/EMF exposure to nearby communities during construction. However, the equipment utilized would generate low levels of EMFs and EMI such that electromagnetic effects would be of negligible intensity. Incorporation of EMI/EMF-IAMF#2, would avoid and minimize all EMI/EMF construction-period effects by ensuring compliance with international guidelines and applicable federal and state laws and regulations. As such, construction of the Palmdale to Burbank Project Section would not result in any adverse effects on EJ populations related to EMI/EMF exposure.

Operations

All Six Build Alternatives

Operation of each of the six Build Alternatives could adversely affect persons with implanted medical devices. Adverse effects from human exposure to EMFs and nearby sensitive equipment would occur at passenger stations, traction power substations, and nearby medical facilities.

In addition to the effects identified above, operation of each of the six Build Alternative could adversely interfere with existing rail lines. Existing rail lines are linear tracks in areas with both EJ and non-EJ populations. EMI/EMF-IAMF#1 would avoid and minimize effects associated with EMFs along existing railroad tracks by ensuring compliance with international guidelines as well as all applicable federal and state laws and regulations. Implementation of Mitigation Measure EMI/EMF-MM#1 will protect sensitive equipment from EMI. With implementation of Mitigation Measure EMI/EMF-MM#1, all EMI/EMF operational effects would be reduced to have no adverse effect on people and sensitive equipment. As such, this resource topic is not discussed further.

5.7.2.5 Hydrology and Water Resources

Construction

All Six Build Alternatives

As discussed in Section 3.8, Hydrology and Water Resources, implementation of each of the six Build Alternatives would (1) require construction of project features within Federal Emergency Management Agency-designated Special Flood Hazard Areas; (2) develop over four groundwater basins; and (3) construct long tunnels beneath the ANF, including SGMNM. Construction of project features within Special Flood Hazard Areas could impede, channelize, or redirect flood flows, resulting in adverse flood risks to construction facilities, workers, and EJ and non-EJ communities in flood-prone areas. Additionally, construction activities would increase the risk of

release of sediment or construction pollutants during a storm event by increasing the potential for erosion and water quality degradation, which may pose health risks for nearby communities.

Construction of all six Build Alternatives would introduce impermeable surfaces that would disrupt the infiltration of water from the surface to groundwater basins, permanently affecting groundwater recharge and regional groundwater availability. Additionally, construction of each of the six Build Alternatives would entail tunneling within groundwater basins, which could result in adverse effects on surface and/or groundwater resources.

Incorporation of HYD-IAMF#1 and HYD-IAMF#2 would avoid and minimize effects associated with construction-period flood risk and effects on surface and groundwater resources by requiring stormwater management facilities to reduce the project's contribution of runoff during flood events and by implementing best management practices to reduce short-term increases in construction site runoff. Additionally, HYD-IAMF#3 will require preparation and implementation of a Stormwater Pollution Prevention Plan, which would require implementation of erosion-control best management practices during construction. As discussed in Section 3.8, Hydrology and Water Resources, Mitigation Measure HWR-MM#1 will require the Authority to treat potential groundwater pursuant to regional permit requirements, and Mitigation Measure HWR-MM#2 will require the Authority to avoid placing permanent facilities within floodplains and minimize encroachment during construction into surface water resources. Therefore, with implementation of Mitigation Measures HWR-MM#1 and HWR-MM#2, all adverse construction-period effects would be reduced to have no adverse effect on flood risk and surface and/or groundwater resources.

Additionally, HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would minimize the potential for groundwater to seep into tunnels during construction, and Mitigation Measure HWR-MM#3 will require the Authority to provide replacement groundwater recharge areas and ensure there is no net loss in recharge area capacity. As such, construction each of the six Build Alternatives would not result in any adverse effects on flood risk or surface and groundwater resources. Because there would be no adverse hydrology and water resources effects, this resource topic is not discussed further.

Operations

All Six Build Alternatives

As discussed in Section 3.8, Hydrology and Water Resources, operation of the Build Alternatives could generate pollutants and stormwater discharge that could degrade water quality, which may result in health risks for nearby communities. HYD-IAMF#1 and HYD-IAMF#4 will ensure that stormwater runoff throughout the project would be controlled and treated prior to discharge. With incorporation of these IAMFs, the Build Alternatives would not result in any adverse effects on water quality. Therefore, this resource topic is not discussed further.

5.7.2.6 Hazardous Materials and Wastes

Construction

All Six Build Alternatives

Construction of the Palmdale to Burbank Project Section would require the handling of hazardous material or waste within 0.25 mile of 20-23 educational facilities for the Refined SR14 Build Alternative, 23-26 educational facilities for the SR14A Build Alternative, 12 educational facilities for the E1 Build Alternative, 12 educational facilities for the E1A Build Alternative, 6 educational facilities for the E2 Build Alternative, and 6 educational facilities for the E2A Build Alternative. A majority of these educational facilities are in EJ communities (see Section 3.10, Hazardous Materials and Wastes, for figures depicting the locations of these facilities). Mitigation Measure HMW-MM#1 will require the contractor to prepare a memorandum confirming that the contractor will not, within 0.25 mile of a school, handle or store an extremely hazardous substance or a mixture of extremely hazardous substances in a quantity greater than or equal to the state threshold specified in the Health and Safety Code. Therefore, there would be no adverse effect.

Because there would be no adverse effects regarding the handling of hazardous material or waste, this resource topic is not discussed further.

Operations

All Six Build Alternatives

As with construction, operation of each of the six Build Alternatives would require the handling of hazardous material or waste within 0.25 mile of the same education facilities. The same mitigation would apply, resulting in no adverse effects. Because there would be no adverse effects regarding the handling of hazardous material or waste, this resource is not discussed further.

5.7.2.7 Safety and Security

Construction

All Six Build Alternatives

Construction of the Palmdale to Burbank Project Section would take place along the entire selected alignment, traversing both EJ and non-EJ communities. During construction, there is a potential for accidents at construction sites and accidental injuries and deaths of workers or the general public. However, all applicable construction safety codes and regulations would be followed by employees engaged in construction activities. Standard implementation of a construction safety and health plan during construction, in compliance with legal requirements, would reduce risk to human health during construction. In addition, contractors would be required to develop Safety and Security Management Plans, site-specific health and safety plans and a site-specific security plan as part of S&S-IAMF#2 (Safety and Security Management Plan). With implementation of S&S-IAMF#2, the potential for construction site accidents would be greatly reduced for all Build Alternatives. Therefore, no communities, including low-income populations and minority populations, would experience adverse effects related to accidents at construction sites and accidents associated with construction-related detours. As such, this resource topic is not discussed further.

There is a potential for individuals to be exposed to Valley fever during ground-disturbing activities. Valley fever is an infection caused by a fungus that lives in arid soils in the southwestern U.S. Appropriate precautions would be taken to educate construction workers and contractors about the signs and risks of Valley fever. Additionally, a fugitive dust control plan (AQ-IAMF#1) and Construction Safety and Health Plans (S&S-IAMF#2) would be implemented during construction that would include measures to reduce the likelihood of Valley fever fungal infection during construction. Therefore, no communities, including low-income populations and minority populations, would experience adverse effects related to Valley fever during construction. As such, this resource topic is not discussed further.

Under all of the Build Alternatives, road closures and modified traffic routing along the HSR alignment during construction could result in increased response times for emergency responders. For a full list of temporary construction-related closures for the Build Alternatives, refer to Section 3.11, Safety and Security. Emergency responders within the RSA would be notified in advance of any road closures that could disrupt access or result in delays in emergency response times, and appropriate detour routes with advance signage to notify emergency providers of road closure would be provided. The above measures would reduce the intensity of effects for all Build Alternatives such that there would be no adverse effect. As such, this resource topic is not discussed further.

Criminal activity around HSR construction sites would be typical of the types of crimes that occur at other heavy construction sites, such as theft of equipment and materials or vandalism after work hours. Construction contractors would institute security measures common to construction sites, including securing equipment and materials in fenced and locked storage areas, as well as the use of security personnel after working hours. Security lighting would be required to be focused on the site, minimizing light spillage onto neighboring properties. With implementation of these security measures, no communities, including low-income populations and minority

populations, would experience adverse effects related to criminal activity at construction sites. As such, this resource topic is not discussed further.

Operations

All Six Build Alternatives

Operation of the Palmdale to Burbank Project Section would entail multiple types of operational effects relating to safety and security. For example, train-to-train collisions, collisions with vehicles, or train derailments could impact safety near potential accident sites. However, all Build Alternatives would implement the highest design standards, including system-design approach, grade-separated crossings, and physical protection barriers. The Authority will also prepare hazard and threat vulnerability analyses to identify hazards ahead of operations and plan solutions to eliminate or minimize risks (S&S-IAMF#3). Therefore, no communities, including low-income populations and minority populations, would experience adverse effects. As such, this resource topic is not discussed further.

All Build Alternatives would include grade separations for motorists, cyclists, and pedestrians. Therefore, no adverse effects on motor vehicle passenger, pedestrian, and bicyclist safety would occur. As such, this resource topic is not discussed further.

The context for project effects from fire would be local; seismic hazard contexts with regard to schools, post-wildfire flooding, and landslide risks could be local or regional. Considering standard design techniques for seismically active regions of California, the fact that the California HSR System would not carry fuel or large quantities of flammable materials, and given the safety record of other HSR systems in seismically sensitive areas, the potential for these hazards would be low. Oil and gas wells within 200 feet of the HSR tracks pose a safety hazard during project construction. Active wells in this zone would be plugged and relocated, and inactive wells would be examined and re-abandoned, as necessary. Additionally, design features and standard operating and emergency response plans would be implemented. Therefore, no communities, including low-income populations and minority populations, would experience adverse effects. As such, this resource topic is not discussed further.

To reduce potential increases in response times for emergency responders, standard design features and emergency response plans would be implemented. Additionally, the Authority would compensate emergency service providers for increased services required due to the California HSR System (S&S-MM#1). The number of people who may be present at HSR stations in Palmdale and Burbank could result in a concentration of additional emergencies in a localized area. Although emergency responses may be more frequent, the facilities and emergency responses can be achieved considering the available emergency service equipment and staff in the region and the increase in response times would be minimal. Considering the available emergency service equipment and staff in the region, response times, and the safety record of international HSR systems, this effect would be minimal. Therefore, no communities, including low-income populations and minority populations, would experience adverse effects. As such, this resource topic is not discussed further.

Criminal activity exists within the RSA and could occur on trains and at stations. Standard design features and operating plans would be implemented to reduce the risk of criminal and terrorist activity in the regional/statewide contexts and the probability for a criminal or terrorist activity to occur in the project corridor is remote. Therefore, no communities, including low-income populations and minority populations, would experience adverse effects. As such, this resource topic is not discussed further.

The risk of accidents affecting the safety of residents, schoolchildren, and school employees would be minimal given that the risk would be limited to the physical effect of a derailed train leaving the right-of-way and that implementation of standard design features would keep trains within the right-of-way. Given that this risk would be minimal throughout the Palmdale to Burbank Project Section, this would not represent an adverse effect. As such, this resource topic is not discussed further.

5.7.2.8 Socioeconomics and Communities

Construction

Refined SR14 Build Alternative

Construction of the Refined SR14 Build Alternative would have one adverse socioeconomic effect: permanent displacement of businesses.

The Refined SR14 Build Alternative would displace residences and commercial and industrial businesses. The residential, commercial, and industrial business displacements would occur along the alignment within the Acton area, Agua Dulce area, San Fernando Valley area, and Burbank Subsection. As shown in Table 5-12, most residential displacements (78 percent) would take place in non-EJ communities. Most business displacements (58 – 61 percent depending on the window option selected) would take place in EJ communities. There would also be 5 residential displacements and 41 business displacements in census block group 60371222002.

Table 5-12 Displacements within the Environmental Justice Resource Study Area – Refined SR14 Build Alternative

Residential and Business Displacements	Number of Displacements (Percentage of Total Displacements)
Total Number of Residential Displacements in RSA ¹	51 – 54
Low-Income EJ Residential Displacements ¹	7 (13 - 14%)
Minority EJ Residential Displacements ¹	12 (22 - 24%)
Total EJ Residential Displacements ^{1,2}	12 (22 - 24%)
Total Non-EJ Residential Displacements ¹	39 – 42 (76 - 78%)
Total Number of Business Displacements in RSA ³	214 – 231
Low-Income EJ Business Displacements ³	84 – 101 (39 – 44%)
Minority EJ Business Displacements ³	125 – 142 (58 – 61%)
Total EJ Business Displacements ^{2,3}	125 – 142 (58 – 61%)
Total Non-EJ Business Displacements ³	89 (39 – 42%)

Source: U.S. Census 2015; Authority 2019b

¹ Variation due to Adit Option A1 in Tujunga Canyon, which (if chosen) would displace 3 residences in block group 60379302002.

² Low-income and minority EJ designations are not mutually exclusive. A block group may be EJ for low-income percentage, minority percentage, or both. Therefore, the total number of EJ displacements will not necessarily represent a sum of low-income displacements plus minority EJ displacements. Refer to Section 5.4.4.2 for a discussion of how the Authority identified EJ populations.

³ Variation due to Window Option W2 in Pacoima, which (if chosen) would displace 17 businesses in block group 60371042041.

Authority = California High-Speed Rail Authority; EJ = Environmental Justice; RSA = resource study area

As demonstrated in Table 5-12, the business displacements resulting from the Refined SR14 Build Alternative would affect EJ populations to a greater degree than non-EJ populations, but residential displacements would primarily affect non-EJ communities. As discussed in Section 3.12, Socioeconomics and Communities, sufficient replacement housing for the units displaced by the Refined SR14 Build Alternative would be available, except in southeast Antelope Valley. Displacements in this area would occur in census block group 60379102051. Adequate replacement housing would be available in neighboring communities within 5 miles, provided such housing can be made available at affordable prices. Therefore, this effect would not be adverse.

While sufficient replacement properties are available to accommodate most businesses displaced by the Refined SR14 Build Alternative, the Los Angeles neighborhoods of Pacoima and Sun Valley lack sufficient replacement sites for displaced industrial businesses to relocate within their

same communities (refer to Section 3.12, Socioeconomics and Communities, for a detailed gap analysis of replacement properties). Pacoima would experience a total of 81 business displacements, 68 of which would occur in census block group 60371047031. An additional 17 Pacoima business displacements would occur in census block group 60371042041 with selection of Window Option W2. Sun Valley would experience 72 business displacements, 57 of which would occur in census block groups 60371222002, 60371212101, 60371212221, and 60371221223. Displaced business in Pacoima could relocate within 10 miles of their existing locations to communities in San Fernando, Panorama City, Sylmar, Van Nuys, North Hollywood, or Burbank. Sun Valley businesses could be relocated within 6 miles to North Hollywood or Burbank. However, given the number of businesses in Pacoima and Sun Valley that would have to relocate outside of their current communities—and potentially cities—this effect would be adverse. As depicted in Table 5-12, the number of minority-community businesses that would have to relocate is below the community reference share, so the Refined SR14A Build Alternative would not cause disproportionately high and adverse effects on minority-community businesses. Nevertheless, business displacements would result in a disproportionately high and adverse effect on low-income communities, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. As such, this effect would be disproportionately high and adverse on low-income populations for the Refined SR14 Build Alternative.

The Authority has developed several EJ-IAMFs that will reduce these effects. EJ-IAMF#2 Business Spotighting will require the Authority’s EJ Ombudsman and Contractor’s EJ Liaison to provide assistance to those businesses to maintain visibility during construction, such as providing signage and targeted advertising and marketing campaigns, incentives for construction worker patronage (as applicable), and/or Authority- sponsored community events. EJ-IAMF#1: Authority EJ Ombudsman and Contractor’s EJ Liaison will require the Authority’s EJ Ombudsman and Contractor’s EJ Liaison to hold roundtables with EJ community members to obtain ideas for business spotighting. Also, EJ-IAMF#4 EJ Business Relocation/Displacement Assistance will require the Authority to develop a relocation mitigation plan with a subsection dedicated to addressing adverse effects to businesses in the EJ communities. It will include a description of measures to relocate displaced businesses in proximity to their same community. The Authority’s EJ Ombudsman and Contractor’s EJ Liaison will hold roundtables to consider the affected EJ communities’ input on this plan, as well. EJ-IAMF#5 will also benefit EJ communities by requiring the Contractor’s EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. These efforts will decrease the disproportionately high and adverse effects of business displacements on EJ communities, but some may remain.

Finally, construction of the Refined SR14 Build Alternative would also divide established communities, resulting in a loss of cohesion. New physical and visual barriers from at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect the community of Harold (census block group 60379102051), south of Lake Palmdale along East Barrel Springs Road, and in a community in Agua Dulce (census block group 60379108101) near Big Springs Road. Neither of these communities are EJ populations. Therefore, there would be no adverse effect on EJ populations from dividing established communities.

Construction of the California HSR System would also result in direct, indirect, and induced employment as well as an increase in sales tax revenue, which would be beneficial to the regional economy. The Authority established a Community Benefits Agreement designed to assist small businesses and job seekers in finding or obtaining construction contracts, jobs, and training opportunities for residents who live in economically disadvantaged areas along the HSR alignment (Authority 2013).

SR14A Build Alternative

Construction of the SR14A Build Alternative would have one adverse socioeconomic effect: permanent displacement of businesses.

The SR14A Build Alternative would displace residences and commercial and industrial businesses. The residential, commercial, and industrial business displacements would occur along the alignment within the Acton area, Agua Dulce area, San Fernando Valley area, and Burbank Subsection. As shown in Table 5-13, most residential displacements (80 – 86 percent, depending on the adit options chosen) and business displacements (56 – 59 percent, depending on window options chosen) would take place in EJ communities. For the SR14A Build Alternative, all of the low-income displacements would occur in census block groups that are both low-income and minority EJ populations. There would also be 5 residential displacements and 41 business displacements in census block group 60371222002.

Table 5-13 Displacements within the Environmental Justice Resource Study Area – SR14A Build Alternative

Residential and Business Displacements	Number of Displacements (Percentage)
Total Number of Residential Displacements in RSA ¹	37 – 40
Low-Income EJ Residential Displacements ¹	27 (68 – 73%)
Minority EJ Residential Displacements ¹	32 (80 – 86%)
Total EJ Residential Displacements ^{1,2}	32 (80 – 86%)
Total Non-EJ Residential Displacements ¹	5 – 8 (14 – 20%)
Total Number of Business Displacements in RSA ³	213 – 230
Low-Income EJ Business Displacements ³	78 – 95 (37 – 41%)
Minority EJ Business Displacements ³	119 – 136 (56 – 59%)
Total EJ Business Displacements ^{2,3}	119 – 136 (56 – 59%)
Total Non-EJ Business Displacements ³	94 (41 – 44%)

Source: U.S. Census, 2015; Authority, 2019b

¹ Variation due to Adit Option A1 in Tujunga Canyon, which (if chosen) would displace three residences in block group 60379302002.

² Low-income and minority EJ designations are not mutually exclusive. A block group may be EJ for low-income percentage, minority percentage, or both. Therefore, the total number of EJ displacements will not necessarily represent a sum of low-income displacements plus minority EJ displacements. Refer to Section 5.4.4.2 for a discussion of how the Authority identified EJ populations.

³ Variation due to Window Option W2 in Pacoima, which (if chosen) would displace 17 businesses in block group 60371042041.

Authority = California High-Speed Rail Authority; EJ = Environmental Justice; RSA = resource study area

As demonstrated in Table 5-13, the residential displacements resulting from the SR14A Build Alternative would affect EJ populations to a greater degree than non-EJ populations. However, as discussed in Section 3.12, Socioeconomics and Communities, sufficient replacement housing would be available for the units displaced by the SR14A Build Alternative. Therefore, this effect would not be adverse.

Like the Refined SR14 Build Alternative, sufficient replacement properties would be available to accommodate most businesses displaced by the SR14A Build Alternative except within the Los Angeles neighborhoods of Pacoima and Sun Valley (refer to Section 3.12, Socioeconomics and Communities for a detailed gap analysis of replacement properties). Business displacements in these communities would be identical to those described for the Refined SR14 Build Alternative. Given the number of businesses in Pacoima and Sun Valley that would have to relocate outside of their current communities—and potentially cities—this effect would be adverse. As depicted in Table 5-13, the number of minority-community businesses that would have to relocate is below the community reference share, so the SR14A Build Alternative would not cause disproportionately high and adverse effects on minority-community businesses. Nevertheless, business displacements would result in a disproportionately high and adverse effect on low-income communities, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. As such, this effect would be disproportionately high and adverse on low-income populations for the SR14A Build Alternative.

The Authority has developed several EJ-IAMFs that will reduce these effects. EJ-IAMF#2 Business Spotighting will require the Authority’s EJ Ombudsman and Contractor’s EJ Liaison to provide assistance to those businesses to maintain visibility during construction, such as providing signage and targeted advertising and marketing campaigns, incentives for construction worker patronage (as applicable), and/or Authority- sponsored community events. EJ-IAMF#1: Authority EJ Ombudsman and Contractor’s EJ Liaison will require the Authority’s EJ Ombudsman and Contractor’s EJ Liaison to hold roundtables with EJ community members to obtain ideas for business spotighting. Also, EJ-IAMF#4 EJ Business Relocation/Displacement Assistance will require the Authority to develop a relocation mitigation plan with a subsection dedicated to addressing adverse effects to businesses in the EJ communities. It will include a description of measures to relocate displaced businesses in proximity to their same community. The Authority’s EJ Ombudsman and Contractor’s EJ Liaison will hold roundtables to consider the affected EJ communities’ input on this plan, as well. EJ-IAMF#5 will also benefit EJ communities by requiring the Contractor’s EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. These efforts will decrease the potential disproportionately high and adverse effects of business displacements on EJ communities, but some may remain.

Finally, construction of the SR14A Build Alternative would also divide established communities, resulting in a loss of cohesion. New physical and visual barriers from at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect Boulders at the Lake Mobile Home Park (census block group 60379107071) south of Avenue S and east of Sierra Highway, and a community in Agua Dulce near Big Springs Road (census block group 60379108101). While the Agua Dulce community is not an EJ community, the Boulders at the Lake Mobile Home Park is both a minority and low-income EJ community. Furthermore, the Boulders at the Lake Mobile Home Park is owned by the Housing Authority of the City of Palmdale, and is a rent-controlled property under the Housing Authority’s regulatory agreement, which further dedicates these housing units to all-age, low- and moderate-income households (City of Palmdale 2021). Long-term affordability covenants are income restrictions on housing units for a fixed term. Therefore, it is reasonable to conclude that low-income (50 percent to 80 percent of the local area median income) and moderate-income (80 percent to 120 percent of the local area median income) residents comprise 100 percent of the tenant population at the mobile home park. At-grade facilities would be built within the western portion of Boulders at the Lake Mobile Home Park south of East Avenue S and east of Sierra Highway (see Figure 3.12-19). Construction in this area would require the displacement of 23 residential properties (of approximately 200 total residential units). Since at-grade facilities would be built only within the western portion, the project would not present a new physical and visual barrier within the existing community. Additionally, access between the remaining homes and the regional road network would be preserved via East Avenue S, which would be modified as an overcrossing over the SR14A Build Alternative alignment. Therefore, there would be no adverse effect on EJ populations from dividing established communities.

Construction of the California HSR System would also result in direct, indirect, and induced employment as well as an increase in sales tax revenue, which would be beneficial to the regional economy. The Authority established a Community Benefits Agreement designed to assist small businesses and job seekers in finding or obtaining construction contracts, jobs, and training opportunities for residents who live in economically disadvantaged areas along the HSR alignment (Authority 2013).

E1 Build Alternative

Construction of the E1 Build Alternative would have one adverse socioeconomic effect: permanent displacement of businesses.

The E1 Build Alternative would displace residences and commercial and industrial businesses. Such displacements would occur along the alignment within the Acton area, San Fernando Valley area, and Burbank Subsection. As shown in Table 5-14, most residential displacements (83 – 86 percent, depending on the adit options selected) would occur in non-EJ communities. Most

business displacements (59 – 62 percent depending on the window options selected) would take place in EJ communities. For the E1 Build Alternative, all of the low-income displacements would occur in census block groups that are EJ for both low-income and minority. There would also be 5 residential displacements and 41 business displacements in census block group 60371222002.

Table 5-14 Displacements within the Environmental Justice Resource Study Area – E1 Build Alternative

Block Groups/Residential and Business Displacements	Number of Displacements
Total Number of Residential Displacements in RSA ¹	24 – 29
Low-Income EJ Residential Displacements	0 (0%)
Minority EJ Residential Displacements ¹	4 (14 – 17%)
Total EJ Residential Displacements ^{1,2}	4 (14 – 17%)
Total Non-EJ Residential Displacements ¹	20 – 25 (83 – 86%)
Total Number of Business Displacements in RSA ³	213 – 230
Low-Income EJ Business Displacements ³	84 – 101 (39 – 44%)
Minority EJ Business Displacements ³	126 – 143 (59 – 62%)
Total EJ Business Displacements ^{2,3}	126 – 143 (59 – 62%)
Total Non-EJ Business Displacements ³	87 (38 – 41%)

Source: U.S. Census 2015; Authority 2019b

¹ Variation due to Adit Option A1 in Tujunga Canyon, which (if chosen) would displace 5 residences in block group 60379302002 (non-EJ for both low-income and minority).

² Low-income and minority EJ designations are not mutually exclusive. A block group may be EJ for low-income percentage, minority percentage, or both. Therefore, the total number of EJ displacements will not necessarily represent a sum of low-income displacements plus minority EJ displacements. Refer to Section 5.4.4.2 for a discussion of how the Authority identified EJ populations.

³ Variation due to Window Option W2 in Pacoima, which (if chosen) would displace 17 businesses in block group 60371042041 (EJ for both low-income and minority).

Authority = California High-Speed Rail Authority; EJ = Environmental Justice; RSA = resource study area

As demonstrated in Table 5-14, the business displacements resulting from the E1 Build Alternative would affect EJ populations to a greater degree than non-EJ populations, but residential displacements would primarily affect non-EJ communities. As discussed in Section 3.12, Socioeconomics and Communities, sufficient replacement housing for the units displaced by the E1 Build Alternative would be available except in Southeast Antelope Valley. Displacements in this area would occur in census block group 60379102051, which is neither a low-income nor a minority EJ community. Adequate replacement housing would be available in neighboring communities within 5 miles, provided such housing can be made available at affordable prices. Therefore, this effect would not be adverse.

While sufficient replacement properties are available to accommodate most businesses displaced by the E1 Build Alternative, the Los Angeles neighborhoods of Pacoima and Sun Valley would lack sufficient replacement sites for displaced industrial businesses to relocate within their same communities (refer to Section 3.12, Socioeconomics and Communities for a detailed gap analysis of replacement properties). Business displacements in these communities would be identical to those described for the Refined SR14 Build Alternative. Given the number of businesses in Pacoima and Sun Valley that would have to relocate outside of their current communities—and potentially cities—this effect would be adverse. As depicted in Table 5-14, disproportionate effects As depicted in Table 5-14, business displacements would result in a disproportionately high and adverse effect on low-income communities, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. As such, this effect would be disproportionately high and adverse on low-income populations for the E1 Build Alternative.

The Authority has developed several EJ-IAMFs that will reduce these effects. EJ-IAMF#2 Business Spotighting will require the Authority’s EJ Ombudsman and Contractor’s EJ Liaison to provide assistance to those businesses to maintain visibility during construction, such as providing signage and targeted advertising and marketing campaigns, incentives for construction worker patronage (as applicable), and/or Authority- sponsored community events. EJ-IAMF#1: Authority EJ Ombudsman and Contractor’s EJ Liaison will require the Authority’s EJ Ombudsman and Contractor’s EJ Liaison to hold roundtables with EJ community members to obtain ideas for business spotighting. Also, EJ-IAMF#4 EJ Business Relocation/Displacement Assistance will require the Authority to develop a relocation mitigation plan with a subsection dedicated to addressing adverse effects to businesses in the EJ communities. It will include a description of measures to relocate displaced businesses in proximity to their same community. The Authority’s EJ Ombudsman and Contractor’s EJ Liaison will hold roundtables to consider the affected EJ communities’ input on this plan, as well. EJ-IAMF#5 will also benefit EJ communities by requiring the Contractor’s EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. These efforts will decrease the potential disproportionately high and adverse effects of business displacements on EJ communities, but some may remain.

Finally, construction of the E1 Build Alternative would divide established communities, resulting in a loss of cohesion. New physical and visual barriers from the at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect the community of Harold (census block group 60379102051), south of Lake Palmdale along East Barrel Springs Road, and a community south of Palmdale near the SCE Vincent Substation (census block group 60379108052). Neither of these communities is an EJ population. Therefore, there would be no adverse effects on EJ populations from dividing established communities.

Construction of the California HSR System would also result in direct, indirect, and induced employment as well as an increase in sales tax revenue, which would be beneficial to the regional economy. The Authority established a Community Benefits Agreement designed to assist small businesses and job seekers in finding or obtaining construction contracts, jobs, and training opportunities for residents who live in economically disadvantaged areas along the HSR alignment (Authority 2013).

E1A Build Alternative

Construction of the E1A Build Alternative would have one adverse socioeconomic effect: permanent displacement of businesses.

The E1A Build Alternative would displace residences and commercial and industrial businesses. Such displacements would occur along the alignment within the Acton area, San Fernando Valley area, and Burbank Subsection. As shown in Table 5-15, most residential displacements (73 – 82 percent depending on the adit options selected) and business displacements (58 – 61 percent, depending on the window options selected) would take place within EJ communities. For the E1A Build Alternative, all of the low-income displacements would occur in census block groups that are EJ for both low-income and minority. There would also be 5 residential displacements and 41 business displacements in census block group 60371222002, which is EJ for minority but not for low-income.

Table 5-15 Displacements within the Environmental Justice Resource Study Area – E1A Build Alternative

Block Groups/Residential and Business Displacements	Number of Displacements (Percentage)
Total Number of Residential Displacements in RSA^{1,2}	39 – 44
Low-Income EJ Residential Displacements ¹	27 (61 – 69%)
Minority EJ Residential Displacements ¹	32 (73 – 82%)

Block Groups/Residential and Business Displacements	Number of Displacements (Percentage)
Total EJ Residential Displacements ^{1,2}	32 (73 – 82%)
Total Non-EJ Residential Displacements ¹	7 – 12 (18 – 27%)
Total Number of Business Displacements in RSA ³	215 – 232
Low-Income EJ Business Displacements ³	84 – 101 (39 – 44%)
Minority EJ Business Displacements ³	125 – 142 (58 – 61%)
Total EJ Business Displacements ^{2,3}	125 – 142 (58 – 61%)
Total Non-EJ Business Displacements ³	90 (39 – 42%)

Source: U.S. Census 2015; Authority 2019b

¹ Variation due to Adit Option A1 in Tujunga Canyon, which (if chosen) would displace five residences in block group 60379302002 (non-EJ for both low-income and minority).

² Low-income and minority EJ designations are not mutually exclusive. A block group may be EJ for low-income percentage, minority percentage, or both. Therefore, the total number of EJ displacements will not necessarily represent a sum of low-income displacements plus minority EJ displacements. Refer to Section 5.4.4.2 for a discussion of how the Authority identified EJ populations.

³ Variation due to Window Option W2 in Pacoima, which (if chosen) would displace 17 businesses in block group 60371042041 (EJ for both low-income and minority).

Authority = California High-Speed Rail Authority; EJ = Environmental Justice; RSA = resource study area

As demonstrated in Table 5-15, the residential displacements resulting from the E1A Build Alternative would affect EJ populations to a greater degree than non-EJ populations. However, as discussed in Section 3.12, Socioeconomics and Communities, sufficient replacement housing for the units displaced by the E1A Build Alternative would be available. Therefore, this effect would not be adverse.

Like the E1 Build Alternative, sufficient replacement properties would be available to accommodate most businesses displaced by the E1A Build Alternative, except within the Los Angeles neighborhoods of Pacoima and Sun Valley (refer to Section 3.12, Socioeconomics and Communities for a detailed gap analysis of replacement properties). Business displacements in these communities would be identical to those described for the Refined SR14 Build Alternative. Given the number of businesses in Pacoima and Sun Valley that would have to relocate outside of their current communities (and potentially cities), this effect would be adverse. As depicted in Table 5-15, business displacements would result in a disproportionately high and adverse effect on low-income communities, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. As such, this effect would be disproportionately high and adverse on low-income populations for the E1A Build Alternative.

The Authority has developed several EJ-IAMFs that will reduce these effects. EJ-IAMF#2 Business Spotighting will require the Authority's EJ Ombudsman and Contractor's EJ Liaison to provide assistance to those businesses to maintain visibility during construction, such as providing signage and targeted advertising and marketing campaigns, incentives for construction worker patronage (as applicable), and/or Authority- sponsored community events. EJ-IAMF#1: Authority EJ Ombudsman and Contractor's EJ Liaison will require the Authority's EJ Ombudsman and Contractor's EJ Liaison to hold roundtables with EJ community members to obtain ideas for business spotighting. Also, EJ-IAMF#4 EJ Business Relocation/Displacement Assistance will require the Authority to develop a relocation mitigation plan with a subsection dedicated to addressing adverse effects to businesses in the EJ communities. It will include a description of measures to relocate displaced businesses in proximity to their same community. The Authority's EJ Ombudsman and Contractor's EJ Liaison will hold roundtables to consider the affected EJ communities' input on this plan, as well. EJ-IAMF#5 will also benefit EJ communities by requiring the Contractor's EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. These efforts will decrease the

potential disproportionately high and adverse effects of business displacements on EJ communities, but some may remain.

Finally, construction of the E1A Build Alternative would also divide established communities, resulting in a loss of cohesion. New physical and visual barriers from at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect the Boulders at the Lake Mobile Home Park (census block group 60379107071) south of Avenue S and east of Sierra Highway, and a community in Agua Dulce near Big Springs Road (census block group 60379108101). While the Agua Dulce community is not an EJ community, the Boulders at the Lake Mobile Home Park is an EJ community for both minority and low-income. Effects on these communities would be identical to those described for the SR14A Build Alternative. Therefore, there would be no adverse effects on EJ populations from dividing established communities.

Construction of the California HSR System would also result in direct, indirect, and induced employment as well as an increase in sales tax revenue, which would be beneficial to the regional economy. The Authority established a Community Benefits Agreement designed to assist small businesses and job seekers in finding or obtaining construction contracts, jobs, and training opportunities for residents who live in economically disadvantaged areas along the HSR alignment (Authority 2013).

E2 Build Alternative

Construction of the E2 Build Alternative would have two adverse socioeconomic effects: permanent displacement of businesses and permanent division of existing communities.

Construction of the E2 Build Alternative would displace one community facility: the Los Angeles County Department of Public Social Services San Fernando Sub Office in Sun Valley (census block group 60371211022). This block group is non-EJ for both minority and low-income. As discussed in Section 3.12, Socioeconomics and Communities, the neighborhood of Sun Valley has a deficit of commercial and industrial business spaces, but over 150 spaces are available in nearby Burbank. The Los Angeles County office would therefore have the opportunity to relocate within 5 miles of its original site and could continue to serve residents of the San Fernando Valley. Because there would be no adverse effects on EJ communities resulting from the displacement of community facilities.

The E2 Build Alternative would also displace residences and commercial and industrial businesses. Such displacements would occur along the alignment within the Acton area, Lake View Terrace neighborhood, and Burbank Subsection. As shown in Table 5-16, most residential displacements. (71 percent) would occur in EJ communities. The E2 Build Alternative would have seven residential displacements in a census block group that is EJ for both minority and low-income (census block group 60379107071). These displacements would occur in the Boulders at the Lake mobile home park in Palmdale. All other displacements would be in census block groups that are EJ for minority but not low-income, or low-income but not minority.

Table 5-16 Displacements within the Environmental Justice Resource Study Area – E2 Build Alternative

Block Groups/Residential and Business Displacements	Number of Displacements (Percentage)
Total Number of Residential Displacements in RSA	49
Low-Income EJ Residential Displacements	30 (49%)
Minority EJ Residential Displacements	12 (24%)
Total EJ Residential Displacements ¹	35 (71%)
Total Non-EJ Residential Displacements	14 (29%)
Total Number of Business Displacements in RSA	121

Block Groups/Residential and Business Displacements	Number of Displacements (Percentage)
Low-Income EJ Business Displacements	1 (1%)
Minority EJ Business Displacements	52 (43%)
Total EJ Business Displacements ¹	53 (44%)
Total Non-EJ Business Displacements	68 (56%)

Source: U.S. Census 2010; Authority 2017

¹ Low-income and minority EJ designations are not mutually exclusive. A block group may be EJ for low-income percentage, minority percentage, or both. Therefore, the total number of EJ displacements will not necessarily represent a sum of low-income displacements plus minority EJ displacements. Refer to Section 5.4.4.2 for a discussion of how the Authority identified EJ populations.

Authority = California High-Speed Rail Authority; EJ = Environmental Justice; RSA = resource study area

As demonstrated in Table 5-16, the residential and business displacements resulting from the E2 Build Alternative would affect EJ populations to a greater degree than non-EJ populations. As discussed in Section 3.12, Socioeconomics and Communities, sufficient replacement housing for the units displaced by the E2 Build Alternative would be available, except in the northern Los Angeles neighborhood of Lake View Terrace (census block group 60371032001), which is a low-income EJ community but not a minority EJ Community. Adequate replacement housing would be available in neighboring communities within approximately 5 miles, provided such housing can be made available at affordable prices. Therefore, this effect would not be adverse.

While sufficient replacement properties are available to accommodate most businesses displaced by the E2 Build Alternative, the Los Angeles neighborhoods of Shadow Hills and Sun Valley would lack sufficient replacement sites for displaced commercial and industrial businesses to relocate within their same communities (refer to Section 3.12, Socioeconomics and Communities for a detailed gap analysis of replacement properties). Shadow Hills would experience a total of six displacements in census block group 60371211022, which is not an EJ community. Sun Valley would experience 2 business displacements in census block groups 60371211021 (non-EJ) and 52 business displacements in census block groups 60371211023 and 60371222002 (minority EJ only). Businesses in Shadow Hills could relocate approximately 4 to 5 miles to Pacoima. Sun Valley businesses could relocate to North Hollywood, which is within 6 miles. Another possible location for displaced Sun Valley businesses is Burbank, which could reduce the distance that certain businesses have to move. However, given the number of businesses in Sun Valley that would have to relocate outside of their current communities—and potentially cities—this effect would be adverse. As depicted in Table 5-16, business displacements would not result in a disproportionately high and adverse effect on minority nor low-income communities as the share of minority and low-income communities experiencing post-mitigation effects was not greater than their reference community share. As such, this effect would not be disproportionately high and adverse for the E2 Build Alternative.

Finally, construction of the E2 Build Alternative would divide established communities, resulting in a loss of cohesion. New physical and visual barriers from the at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect the community of Harold (census block group 60379102051), south of Lake Palmdale along East Barrel Springs Road, a community south of Palmdale near the SCE Vincent Substation (census block group 60379108052), and a community in Lake View Terrace (60371032001). Of these established communities, only Lake View Terrace is identified as an EJ population (low-income only). The permanent loss of cohesion in this community would represent an adverse effect. Therefore, community cohesion effects would potentially be disproportionately high and adverse on low-income communities, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. As such, this effect would be disproportionately high and adverse on low-income populations for the E2 Build Alternative.

EJ-IAMF#3 will require the Contractor's EJ liaison shall work with the Authority EJ ombudsman to hold community roundtables to seek input on locally-desired aesthetic treatment preferences from the adversely affected EJ communities (as defined in EJ-IAMF#1), in order to minimize adverse

cohesion effects from the at-grade or above-grade Build Alternative footprint. EJ-IAMF#5 will also benefit EJ communities by requiring the Contractor’s EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. These efforts will decrease the potential disproportionately high and adverse effects of community cohesion on EJ communities, but some may remain.

Construction of the California HSR System would also result in direct, indirect, and induced employment as well as an increase in sales tax revenue, which would be beneficial to the regional economy. The Authority established a Community Benefits Agreement designed to assist small businesses and job seekers in finding or obtaining construction contracts, jobs, and training opportunities for residents who live in economically disadvantaged areas along the HSR alignment (Authority 2013).

E2A Build Alternative

Construction of the E2A Build Alternative would have two adverse socioeconomic effects: permanent displacement of businesses and permanent division of existing communities.

Like the E2 Build Alternative, construction of the E2A Build Alternative would displace one community facility: the Los Angeles County Department of Public Social Services San Fernando Sub Office in Sun Valley (census block group 60371211022). This census block group is not an EJ community. As discussed in Section 3.12, Socioeconomics and Communities, the neighborhood of Sun Valley has a deficit of commercial and industrial business spaces, but over 150 spaces are available in nearby Burbank. The Los Angeles County office would therefore have the opportunity to relocate within 5 miles of its original site and could continue to serve residents of the San Fernando Valley. Because there would be no adverse effects on EJ communities resulting from the displacement of community facilities, this resource topic is not discussed further.

The E2A Build Alternative would also displace residences and commercial and industrial businesses. Such displacements would occur along the alignment within the Acton area, Lake View Terrace neighborhood, and Burbank Subsection. As shown on Table 5-17, most residential displacements (94 percent) would occur in EJ communities. However, fewer business displacements (43 percent) would occur in EJ communities compared to non-EJ communities. The vast majority of EJ residential displacements (50 of 51) would be in census block groups that are EJ for low-income while most EJ business displacements (52 of 53) would occur in census block groups that are EJ for minority but not low-income.

Table 5-17 Displacements within the Environmental Justice Resource Study Area – E2A Build Alternative

Block Groups/Residential and Business Displacements	Number of Displacements (Percentage)
Total Number of Residential Displacements in RSA	53
Low-Income EJ Residential Displacements	50 (94%)
Minority EJ Residential Displacements	28 (53%)
Total EJ Residential Displacements ¹	51 (96%)
Non-EJ Residential Displacements	2 (4%)
Total Number of Business Displacements in RSA	123
Low-Income EJ Business Displacements	1 (1%)
Minority EJ Business Displacements	52 (42%)
Total EJ Business Displacements ¹	53 (43%)

Block Groups/Residential and Business Displacements	Number of Displacements (Percentage)
Non-EJ Business Displacements	70 (57%)

Source: U.S. Census 2010; Authority 2017

¹ Low-income and minority EJ designations are not mutually exclusive. A block group may be EJ for low-income percentage, minority percentage, or both. Therefore, the total number of EJ displacements will not necessarily represent a sum of low-income displacements plus minority EJ displacements. Refer to Section 5.4.4.2 for a discussion of how the Authority identified EJ populations.

Authority = California High-Speed Rail Authority; EJ = Environmental Justice; RSA = resource study area

As demonstrated in Table 5-17, the residential displacements resulting from the E2A Build Alternative would affect EJ populations to a greater degree than non-EJ populations. As discussed in Section 3.12, Socioeconomics and Communities, sufficient replacement housing for the units displaced by the E2A Build Alternative would be available, except in the northern Los Angeles neighborhood of Lake View Terrace (census block group 60371032001), which is a low-income EJ community but not a minority EJ Community. Adequate replacement housing would be available in neighboring communities within approximately 5 miles, provided such housing can be made available at affordable prices. Therefore, this effect would not be adverse.

While sufficient replacement properties are available to accommodate most businesses displaced by the E2A Build Alternative, the Los Angeles neighborhoods of Shadow Hills and Sun Valley would lack sufficient replacement sites for displaced commercial and industrial businesses to relocate within their same communities (refer to Section 3.12, Socioeconomics and Communities for a detailed gap analysis of replacement properties). Shadow Hills would experience a total of six displacements in census block group 60371211022, which is not an EJ community. Sun Valley would experience 2 business displacements in census block groups 60371211021 (non-EJ) and 52 business displacements in census block groups 60371211023 and 60371222002 (minority EJ only). Businesses in Shadow Hills could relocate approximately 4 to 5 miles to Pacoima. Sun Valley businesses could relocate to North Hollywood, which is within 6 miles. Another possible location for displaced Sun Valley businesses is Burbank, which could reduce the distance that certain businesses have to move. However, given the number of businesses in Sun Valley that would have to relocate outside of their current communities—and potentially cities—this effect would be adverse. As depicted in Table 5-17, no disproportionate As depicted in Table 5-17, business displacements would not result in a disproportionately high and adverse effect on minority nor low-income communities as the share of minority and low-income communities experiencing post-mitigation effects was not greater than their reference community share. As such, this effect would not be disproportionately high and adverse for the E2A Build Alternative.

Finally, construction of the E2A Build Alternative would divide established communities, resulting in a loss of cohesion. New physical and visual barriers from at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect the Boulders at the Lake Mobile Home Park (census block group 60379107071) south of Avenue S and east of Sierra Highway, a community south of Palmdale near the SCE Vincent Substation (census block group 60379108052), and a community in Lake View Terrace (census block group 60371032001). Of these established communities, the Boulders at the Lake Mobile Home Park is both a minority and low-income EJ community, and Lake View Terrace is identified as an EJ population (low-income only). Effects to the Boulders at the Lake Mobile Home Park would be identical to those described for the SR14A and E1A Build Alternatives, and therefore, there would be no adverse effects on this EJ population. However, the permanent loss of cohesion in the Lake View Terrace community would represent an adverse effect. Therefore, community cohesion effects would be disproportionately high and adverse on low-income communities, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. As such, this effect would be disproportionately high and adverse on low-income populations for the E2 Build Alternative.

EJ-IAMF#3 will require the Contractor's EJ liaison shall work with the Authority EJ ombudsman to hold community roundtables to seek input on locally-desired aesthetic treatment preferences from

the adversely affected EJ communities (as defined in EJ-IAMF#1), in order to minimize adverse cohesion effects from the at-grade or above-grade Build Alternative footprint. EJ-IAMF#5 will also benefit EJ communities by requiring the Contractor’s EJ liaison to distribute to EJ communities multilingual notices that estimate the operation commencement date. The notices will explain how EJ communities can access the HSR facilities, so EJ community members could use them. These efforts will decrease the potential disproportionately high and adverse effects of community cohesion on EJ communities, but some may remain.

Construction of the California HSR System would also result in direct, indirect, and induced employment as well as an increase in sales tax revenue, which would be beneficial to the regional economy. The Authority established a Community Benefits Agreement designed to assist small businesses and job seekers in finding or obtaining construction contracts, jobs, and training opportunities for residents who live in economically disadvantaged areas along the HSR alignment (Authority 2013).

Operations

All Six Build Alternatives

Most socioeconomic effects would occur during construction of the Build Alternatives and would persist during the operations phase. However, because these effects would originate during construction, they are considered construction effects.

Operation of the Palmdale to Burbank Project Section would bring social benefits to the region by improving access to jobs and community amenities, reducing travel times, reducing traffic congestion, and providing new employment opportunities during operation. As discussed in Section 3.18, Regional Growth, operation of the Build Alternatives would result in an estimated 5,400 direct, indirect, and induced jobs in Los Angeles County. Combined with anticipated sales tax revenues from project spending on operation and maintenance of the Burbank Airport Station, this would represent an economic benefit for the region.

5.7.2.9 Parks, Recreation, and Open Space

Construction

All Six Build Alternatives

As discussed in Section 3.15, Parks, Recreation, and Open Space, construction of each of the six Build Alternatives would result in temporary impact areas, temporary facility closures, and temporary detours. Construction of the project would require the acquisition of property from parks and recreation areas. Additionally, construction of the each of the Build Alternatives would result in adverse construction-period effects associated with access, air quality, noise, and visual quality at recreational resources within the Palmdale to Burbank Project Section.

AQ-IAMF#1, N&V-IAMF#1, and PK-IAMF#1 would avoid and minimize effects associated with temporary air quality, noise and vibration, and access-related effects on recreational resources by preparing a fugitive dust control plan, a noise and vibration technical memorandum, and a technical memorandum that identifies project design features to be implemented to minimize effects on parks, recreation, and open space. Mitigation Measures PR-MM#1 through PR-MM#9 would reduce construction effects on parks, recreation, and open space resources by (1) providing detour routes and connections for park facilities where access is restricted during construction; (2) implementing standard construction safety measures; (3) implementing a trail facilities plan; (4) applying strategies for temporary facility relocation; (5) placing requirements for return of land post construction; and (6) requiring the Authority to consult with the property owner regarding any permanent changes to public facilities in accordance with the Uniform Act and the California Park Preservation Act. With implementation of Mitigation Measures PR-MM#1 through PR-MM#9, all adverse construction-period effects would be reduced to have no adverse effects on parks, recreation, and open space resources. As such, construction of each of the six Build Alternatives would not result in any adverse effects on parks, recreation, and open space resources. Because there would be no adverse construction effects on parks, recreation, and open space resources, this resource area is not discussed further.

Operations

All Six Build Alternatives

As discussed in Section 3.15, Parks, Recreation, and Open Space, there would be no permanent increased or decreased use of park facilities as a result of construction of each of the six Build Alternatives. However, construction of the Build Alternatives would result in physical changes to parks and their character. Adverse effects from the physical alteration of existing facilities, or a need to provide new parks or other recreational facilities, would occur at recreational resources within the Palmdale to Burbank Project Section. Additionally, operational noise and vibration could result in adverse effects on users of park facilities and other open space resources.

Mitigation Measure PR-MM#8 will require the Authority to consult with the property owner regarding permanent changes to parks, recreational resources, and/or trails to ensure that accessibility to affected park facilities is maintained and that project improvement would not result in physical deterioration of the resource. As discussed in Section 5.7.2.3, implementation of Mitigation Measures N&V-MM#3, N&V-MM#7, and N&V-MM#8 will ensure that operation of the Build Alternatives would not result in adverse noise and vibration effects, including at parks and other recreational facilities. With implementation of Mitigation Measures PR-MM#8, N&V-MM#3, N&V-MM#7, and N&V-MM#8, all adverse operational effects would be reduced to no adverse effect on parks, recreation, and open space resources. As such, operation of the Palmdale to Burbank Project Section would not result in any adverse effects on parks, recreation, and open space resources and this resource topic is not discussed further.

5.7.2.10 Aesthetics and Visual Quality

Construction

Temporary Construction Effects

All Six Build Alternatives

As discussed in Section 3.16, Aesthetics and Visual Quality, construction of each of the six Build Alternatives would result in three adverse effects: effects on existing visual quality, effects on viewers by adding new sources of light and glare during construction, and effects on scenic vistas and drives. All three adverse effects would occur within the Central Subsection for each of the Build Alternatives.

Mitigation Measure AVQ-MM#1 will require that, prior to construction, the contractor prepare a technical memorandum identifying how the project would minimize construction-related visual and aesthetic disruption. Additionally, Mitigation Measure AVQ-MM#2 will require the contractor to prepare a technical memorandum verifying how they would shield nighttime construction lighting and direct it downward such that lighting that falls outside the construction site boundaries is minimized. Implementation of Mitigation Measures AVQ-MM#1 and AVQ-MM#2 would reduce visual effects from construction to a non-adverse level. As such, this resource topic is not discussed further.

Permanent Construction Effects

Refined SR14 Build Alternative

Construction of the Refined SR14 Build Alternative would have permanent adverse effects on visual quality in some areas. HSR-related structures, including stations, elevated guideways, maintenance facilities, and ancillary features, would block views, cast shadows, and add built features to the landscape. The Refined SR14 Build Alternative would include substantial below-ground portions but would necessitate the construction of large-scale overcrossing structures over various waterways and other scenic natural resources, which would cause greater changes in visual quality due to permanent construction effects. Table 5-18 provides a summary of the permanent changes in visual quality under the Refined SR14 Build Alternative on key viewpoints (KVP), including whether each KVP is an area with an EJ population, and which mitigation measures will apply (refer to Section 3.16, Aesthetics and Visual Quality, for KVP locations).

Table 5-18 Summary of Visual Quality Changes and Effects at Key Viewpoints – Refined SR14 Build Alternative

KVP # and Location	Mitigation Measures	Adverse Effect?	In EJ Census Block Group?
Central Subsection			
KVP 1.1: East Avenue S	N/A	No	Yes
KVP 1.2: Sierra Highway	AVQ-MM#4 AVQ-MM#5 AVQ-MM#6	Yes	Yes
KVP 1.5: Lamont Odett Vista Point 1	N/A	No	No
KVP 1.6: Lamont Odett Vista Point 2	N/A	No	No
KVP 1.7: Acton Agua Dulce Library	N/A	No	No
KVP 1.8: Red Rover Mine Road	AVQ-MM#3 AVQ-MM#4	Yes	No
KVP 1.10: State Route 14 East	AVQ-MM#3 AVQ-MM#4	Yes	No
KVP 1.11: Escondido Canyon Road	AVQ-MM#3 AVQ-MM#4	Yes	No
KVP 1.14: Pacific Crest Trail	AVQ-MM#3 AVQ-MM#4	Yes	No
KVP 1.15: Vazquez Rocks	N/A	No	No
KVP 1.16: Agua Dulce Canyon Road	AVQ-MM#3 AVQ-MM#4	Yes	No
KVP 1.17: State Route 14	N/A	No	No
KVP 1.18: Soledad Canyon Road 1	N/A	No	No
KVP 1.19: Soledad Canyon Road 2	N/A	No	No
KVP 1.20: Sequoia Road	N/A	No	No
KVP 1.26: Gladstone Street	N/A	No	No
KVP 1.27: Hansen Spreading Grounds	N/A	No	No
KVP 1.28: Sheldon Street	N/A	No	Yes
KVP 1.29: Sun Valley Road	N/A	No	Yes
Burbank Subsection			
KVP 2.1: San Fernando Road	N/A	No	No

EJ = Environmental Justice; KVP = key viewpoint; N/A = not applicable

As shown in Table 5-18, the Refined SR14 Build Alternative would result in permanent effects on visual quality at 6 of the 20 KVPs encountered. One of the six KVPs (KVP 1.2) is within an EJ population: census block group 60379107071, which is both a minority and low-income EJ population. Therefore, permanent effects on visual quality would occur in low-income populations (17 percent) or minority populations (17 percent) for the Refined SR14 Build Alternative.

Incorporation of AVQ-IAMF#1 and AVQ-IAMF#2 will require application of the Authority's aesthetic guidelines to minimize visual effects and guide the development of non-station area

structures based on local aesthetic preferences. Implementation of Mitigation Measures AVQ-MM#3, AVQ-MM#4, AVQ-MM#5, and AVQ-MM#6 would further reduce the various effects on visual quality. These measures will incorporate local design and aesthetic preferences into viaduct design, require landscape treatments adjacent to elevated guideways, landscape treatments along the embankment, and the planting of vegetation within land for the project not used for HSR supporting infrastructure. Even with implementation of IAMFs and mitigation measures, the Refined SR14 Build Alternative would still result in adverse effects. However, as shown above, permanent visual quality effects would not be disproportionately high and adverse for the Refined SR14 Build Alternative, as the share of minority and low-income communities experiencing post-mitigation effects would not be greater than their reference community share. As such, this effect would not be disproportionately high and adverse for the Refined SR14 Build Alternative.

SR14A Build Alternative

The SR14A Build Alternative would result in permanent adverse effects from construction on visual quality in some areas. HSR-related structures, including stations, elevated guideways, maintenance facilities, and ancillary features, would block views, cast shadows, and add built features to the landscape. The SR14A Build Alternative would include substantial below-ground portions and would also require the construction of large-scale overcrossing structures over various waterways and other scenic natural resources, which would cause greater changes in visual quality due to permanent construction effects. Table 5-19 provides a summary of the permanent changes in visual quality under the SR14A Build Alternative on KVPs, including whether each KVP is an area with an EJ population, and which mitigation measures will apply (refer to Section 3.16, Aesthetics and Visual Quality, for KVP locations).

Table 5-19 Summary of Visual Quality Changes and Effects at Key Viewpoints – SR14A Build Alternative

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
Central Subsection			
KVP 1.1: East Avenue S	N/A	No	Yes
KVP 1.2: Sierra Highway	N/A	No	Yes
KVP 1.3: Soledad Siphon	AVQ-MM#3, AVQ-MM#4	Yes	Yes (divided)
KVP 1.4: Soledad Siphon	N/A	No	Yes
KVP 1.5: Lamont Odett Vista Point 1	N/A	No	No
KVP 1.6: Lamont Odett Vista Point 2	N/A	No	No
KVP 1.7: Acton Agua Dulce Library	N/A	No	No
KVP 1.9: SR14A Acton Intermediate Window	N/A	No	No
KVP 1.16: Agua Dulce Canyon Road	AVQ-MM#3, AVQ-MM#4	Yes	No
KVP 1.17: State Route 14	N/A	No	No
KVP 1.18: Soledad Canyon Road 1	N/A	No	No
KVP 1.19: Soledad Canyon Road 2	N/A	No	No
KVP 1.20: Sequoia Road	N/A	No	No
KVP 1.26: Gladstone Street	N/A	No	No

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
KVP 1.27: Hansen Spreading Grounds	N/A	No	No
KVP 1.28: Sheldon Street	N/A	No	Yes
KVP 1.29: Sun Valley Road	N/A	No	Yes
Burbank Subsection			
KVP 2.1: San Fernando Road	N/A	No	No

EJ = Environmental Justice; KVP = key viewpoint; N/A = not applicable

The SR14A Build Alternative would result in permanent effects on visual quality at 2 of the 18 encountered KVPs. Of the two affected KVPs, only KVP 1.3 is within an area adjacent to an EJ population: census block group 60379107071, which is both a minority and a low-income EJ population. KVP 1.3 (on Sierra Highway, near the California Aqueduct crossing) currently has moderate visual quality. The SR14A Build Alternative would cross the highway with an HSR viaduct, near another major infrastructure (California Aqueduct) undercrossing. Project infrastructure may lessen the visual quality for roadway vehicle occupants and nearby neighborhoods. This is a mountainous area that is sparsely populated. This particular KVP straddles census tracts that are both non-minority and non-low-income and minority and low-income. Therefore, an adverse effect on this KVP would not disproportionately effect EJ populations as this KVP straddles both EJ and non-EJ communities. Neither of the two adversely affected key viewpoint areas in the SR14A Build Alternative would predominately affect minority or low-income communities. As such, this effect would not be disproportionately high and adverse for the SR14A Build Alternative.

E1 Build Alternative

Regarding permanent construction effects, the E1 Build Alternative would have adverse effects on visual quality in some areas. HSR-related structures, including stations, elevated guideways, maintenance facilities, and ancillary features, would block views, cast shadows, and add built features to the landscape. The E1 Build Alternative would include substantial below-ground portions and would also necessitate the construction of large-scale overcrossing structures over various waterways and other scenic natural resources, which would cause greater changes in visual quality due to permanent construction effects. Table 5-20 provides a summary of the permanent changes in visual quality under the E1 Build Alternative on KVPs, including whether each KVP is within an area with an EJ population, and which mitigation measures will apply (refer to Section 3.16, Aesthetics and Visual Quality, for KVP locations).

Table 5-20 Summary of Visual Quality Changes and Effects at Key Viewpoints – E1 Build Alternative

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
Central Subsection			
KVP 1.1: East Avenue S	N/A	No	Yes
KVP 1.2: Sierra Highway	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	Yes
KVP 1.5: Lamont Odett Vista Point 1	N/A	No	No
KVP 1.6: Lamont Odett Vista Point 2	N/A	No	No

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
KVP 1.12: Foreston Drive	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	No
KVP 1.13: Aliso Canyon Road	N/A	No	Yes
KVP 1.21: Arrastre Canyon Road	N/A	No	No
KVP 1.26: Gladstone Street	N/A	No	No
KVP 1.27: Hansen Spreading Grounds	N/A	No	No
KVP 1.28: Sheldon Street	N/A	No	Yes
KVP 1.29: Sun Valley Road	N/A	No	Yes
Burbank Subsection			
KVP 2.1: San Fernando Road	N/A	No	No

EJ = Environmental Justice; KVP = key viewpoint; N/A = not applicable

As shown in Table 5-20, the E1 Build Alternative would result in permanent effects on visual quality at two of the 12 KVPs encountered. One of the two KVPs (KVP 1.2) is within an EJ population: census block group 60379107071, which is both a minority and a low-income EJ population. Therefore, permanent effects on visual quality would occur in low-income populations (50 percent) and minority populations (50 percent) for the E1 Build Alternative.

Incorporation of AVQ-IAMF#1 and AVQ-IAMF#2 will require application of the Authority's aesthetic guidelines to minimize visual effects and guide the development of non-station area structures based on local aesthetic preferences. Implementation of Mitigation Measures AVQ-MM#3, AVQ-MM#4, AVQ-MM#5, and AVQ-MM#6 would further reduce the various effects on visual quality. These measures will incorporate local design and aesthetic preferences into viaduct design, require landscape treatments adjacent to elevated guideways, landscape treatments along the embankment, and the planting of vegetation within land acquired for the project but not used for HSR supporting infrastructure. Even with implementation of these mitigation measures, the E1 Build Alternative would still result in adverse effects.

As shown above, permanent visual quality effects would be potentially disproportionately high and adverse on low-income communities for the E1 Build Alternative, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. Therefore, EJ-specific IAMFs and mitigation measures shall be implemented in order to reduce the potential for disproportionately high and adverse effects on EJ communities (please refer to Section 5.8 for descriptions of EJ-specific IAMFs and mitigation measures). EJ-IAMF#3 shall require the Contractor's EJ liaison and the Authority's EJ ombudsman to hold community roundtables to seek input on locally-desired aesthetic treatment preferences from the adversely affected EJ communities (as defined in EJ-IAMF#1), possibly developed by local artists, in order to ameliorate potential disproportionately high and adverse permanent visual quality effects from the project on EJ communities.

E1A Build Alternative

The E1A Build Alternative would result in permanent adverse effects from construction on visual quality in some areas. HSR-related structures, including stations, elevated guideways, maintenance facilities, and ancillary features, would block views, cast shadows, and add built features to the landscape. The E1A Build Alternative would include substantial below-ground portions. However, the E1A Build Alternative would also implement construction of large-scale overcrossing structures over various waterways and other scenic natural resources, which would

cause greater changes in visual quality due to permanent construction effects. Table 5-21 provides a summary of the permanent changes in visual quality under the E1A Build Alternative on KVPs, including whether each KVP is within an area with an EJ population, and which mitigation measures will apply (refer to Section 3.16, Aesthetics and Visual Quality, for KVP locations).

Table 5-21 Summary of Visual Quality Changes and Effects at Key Viewpoints – E1A Build Alternative

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
Central Subsection			
KVP 1.1: East Avenue S	N/A	No	Yes
KVP 1.2: Sierra Highway	N/A	No	Yes
KVP 1.3: Soledad Siphon	AVQ-MM#3, AVQ-MM#4	Yes	Yes (divided)
KVP 1.4: Soledad Siphon	N/A	No	Yes
KVP 1.5 : Lamont Odett Vista Point 1	N/A	No	No
KVP 1.6 : Lamont Odett Vista Point 2	N/A	No	No
KVP 1.12: Foreston Drive	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	No
KVP 1.13: Aliso Canyon Road	N/A	No	No
KVP 1.21: Arrastre Canyon Road	N/A	Yes	No
KVP 1.26: Gladstone Street	N/A	No	No
KVP 1.27: Hansen Spreading Grounds	N/A	No	No
KVP 1.28: Sheldon Street	N/A	No	Yes
KVP 1.29: Sun Valley Road	N/A	No	Yes
Burbank Subsection			
KVP 2.1: San Fernando Road	N/A	No	No

EJ = Environmental Justice; KVP = key viewpoint; N/A = not applicable

The E1A Build Alternative would result in permanent effects on visual quality at two of the 14 KVPs encountered. Of the two KVPs, only KVP 1.3 is within an area adjacent to an EJ population: census block group 60379107071, which is both a minority and a low-income EJ population. KVP 1.3 (on Sierra Highway, near the California Aqueduct crossing) currently has moderate visual quality. The SR14A alternative would cross the highway with an HSR viaduct, near another major infrastructure (California Aqueduct) undercrossing. Project infrastructure may lessen the visual quality for roadway vehicle occupants and nearby neighborhoods. This is a mountainous area that is sparsely populated. This particular KVP straddles census tracts that are both non-minority and non-low-income and minority and low-income. Therefore, an adverse effect on this KVP would not disproportionately effect EJ populations as this KVP straddles both EJ and non-EJ communities. Neither of the two adversely affected key viewpoint areas in the E1A Build Alternative would predominately affect minority or low-income communities. As such, this effect would not be disproportionately high and adverse for the E1A Build Alternative.

E2 Build Alternative

Regarding permanent construction effects, the E2 Build Alternative would have adverse effects on visual quality in some areas. HSR-related structures, including stations, elevated guideways, maintenance facilities, and ancillary features, would block views, cast shadows, and add built features to the landscape. The E2 Build Alternative would include substantial below-ground portions but would necessitate the construction of large-scale overcrossing structures over various waterways and other scenic natural resources, which would cause greater changes in visual quality due to permanent construction effects. Table 5-22 provides a summary of the permanent changes in visual quality under the E2 Build Alternative on KVPs, including whether each KVP is an area with an EJ population, and which mitigation measures will apply (refer to Section 3.16, Aesthetics and Visual Quality, for KVP locations).

Table 5-22 Summary of Visual Quality Changes and Effects at Key Viewpoints – E2 Build Alternative

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
Central Subsection			
KVP 1.1: East Avenue S	N/A	No	Yes
KVP 1.2: Sierra Highway	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	Yes
KVP 1.5: Lamont Odett Vista Point 1	N/A	No	No
KVP 1.6: Lamont Odett Vista Point 2	N/A	No	No
KVP 1.12: Foreston Drive	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	No
KVP 1.13: Aliso Canyon Road	N/A	No	Yes
KVP 1.21: Arrastre Canyon Road	N/A	No	No
KVP 1.22: Lake View Terrace	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	Yes
KVP 1.23: Lake View Terrace 2	N/A	No	Yes
KVP 1.24: Big Tujunga Wash	AVQ-MM#3, AVQ-MM#4	Yes	No
KVP 1.25: Interstate 210	N/A	No	Yes
Burbank Subsection			
KVP 2.1: San Fernando Road	N/A	No	No

EJ = Environmental Justice; KVP = key viewpoint; N/A = not applicable

As shown in Table 5-22, the E2 Build Alternative would result in permanent effects on visual quality at four of the 12 KVPs encountered. Two of the four adversely affected KVPs are within an area with EJ populations. KVP 1.2 is in census block group 60379107071 (EJ for both minority and low-income) and KVP 1.22 is in census block group 60371032001 (low-income EJ only). Therefore, permanent effects on visual quality would occur in low-income populations (50 percent) and minority populations (25 percent) for the E2 Build Alternative.

Incorporation of AVQ-IAMF#1 and AVQ-IAMF#2, and implementation of Mitigation Measures AVQ-MM#3, AVQ-MM#4, AVQ-MM#5, and AVQ-MM#6 will be required to reduce the various effects on visual quality. Even with implementation of these mitigation measures, the E2 Build Alternative would still result in adverse effects on visual quality. As shown above, permanent visual quality effects would be disproportionately high and adverse on low-income communities for the E2 Build Alternative, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. Therefore, EJ-specific IAMFs and mitigation measures shall be implemented in order to reduce the potential for disproportionately high and adverse effects on EJ communities (please refer to Section 5.8 for descriptions of EJ-specific IAMFs and mitigation measures). EJ-IAMF#3 shall require the Contractor’s EJ liaison and the Authority’s EJ ombudsman to hold community roundtables to seek input on locally-desired aesthetic treatment preferences from the adversely affected EJ communities (as defined in EJ-IAMF#1), possibly developed by local artists, in order to ameliorate potential disproportionately high and adverse permanent visual quality effects from the project on EJ communities.

E2A Build Alternative

The E2A Build Alternative would result in permanent adverse effects from construction on visual quality in some areas. HSR-related structures, including stations, elevated guideways, maintenance facilities, and ancillary features, would block views, cast shadows, and add built features to the landscape. The E2A Build Alternative would include substantial below-ground portions. However, the E2A Build Alternative would also implement construction of large-scale overcrossing structures over various waterways and other scenic natural resources, which would cause greater changes in visual quality due to permanent construction effects. Table 5-23 provides a summary of the permanent changes in visual quality under the E2A Build Alternative on KVPs, including whether each KVP is within an area with an EJ population, and which mitigation measures will apply (refer to Section 3.16, Aesthetics and Visual Quality, for KVP locations).

Table 5-23 Summary of Visual Quality Changes and Effects at Key Viewpoints – E2A Build Alternative

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
Central Subsection			
KVP 1.1: East Avenue S	N/A	No	Yes
KVP 1.2: Sierra Highway	N/A	No	Yes
KVP 1.3: Soledad Siphon	AVQ-MM#3, AVQ-MM#4	Yes	Yes (divided)
KVP 1.4: Soledad Siphon	N/A	No	Yes
KVP 1.5: Lamont Odett Vista Point 1	N/A	No	No
KVP 1.6: Lamont Odett Vista Point 2	N/A	No	No
KVP 1.12: Foreston Drive	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	No
KVP 1.13: Aliso Canyon Road	N/A	No	Yes
KVP 1.21: Arrastre Canyon Road	N/A	No	No
KVP 1.22: Lake View Terrace	AVQ-MM#4, AVQ-MM#5, AVQ-MM#6	Yes	Yes

KVP # and Location	Mitigation Measures	Adverse Effect?	In Area with an EJ Population?
KVP 1.23: Lake View Terrace 2	N/A	No	Yes
KVP 1.24: Big Tujunga Wash	AVQ-MM#3, AVQ-MM#4	Yes	No
KVP 1.25: Interstate 210	N/A	No	Yes
Burbank Subsection			
KVP 2.1: San Fernando Road	N/A	No	No

EJ = Environmental Justice; KVP = key viewpoint; N/A = not applicable

The E2A Build Alternative would result in permanent effects on visual quality at 4 of the 14 KVPs encountered. Two of the four adversely affected KVPs are within an area with EJ populations. KVP 1.3 is within an area adjacent to an EJ population: census block group 60379107071 (EJ for both minority and low-income) and KVP 1.22 is in census block group 60371032001 (low-income EJ only). KVP 1.3 (on Sierra Highway, near the California Aqueduct crossing) currently has moderate visual quality. The E2A Build Alternative would cross the highway with an HSR viaduct, near another major infrastructure (California Aqueduct) undercrossing. Project infrastructure may lessen the visual quality for roadway vehicle occupants and nearby neighborhoods. This is a mountainous area that is sparsely populated. KVP 1.3 straddles census tracts that are both non-minority and non-low-income and minority and low-income. Therefore, an adverse effect on this KVP would not disproportionately affect EJ populations as this KVP straddles both EJ and non-EJ communities. However, permanent effects on visual quality would occur at KVP 1.22 (at Lake View Terrace), and therefore the E2A Build Alternative would result in adverse visual quality effects for low-income populations (25 percent) for the E2A Build Alternative.

Incorporation of AVQ-IAMF#1 and AVQ-IAMF#2, and implementation of Mitigation Measures AVQ-MM#3, AVQ-MM#4, AVQ-MM#5, and AVQ-MM#6, will be required to reduce the various effects on visual quality. Even with implementation of these mitigation measures, the E2A Build Alternative would still result in adverse effects on visual quality. As shown above, permanent visual quality effects would be disproportionately high and adverse on low-income communities for the E2 Build Alternative, as the share of low-income communities experiencing post-mitigation effects is greater than their reference community share. Therefore, EJ-specific IAMFs and mitigation measures shall be implemented in order to reduce the potential for disproportionately high and adverse effects on EJ communities (please refer to Section 5.8 for descriptions of EJ-specific IAMFs and mitigation measures). EJ-IAMF#3 shall require the Contractor's EJ liaison and the Authority's EJ ombudsman to hold community roundtables to seek input on locally-desired aesthetic treatment preferences from the adversely affected EJ communities (as defined in EJ-IAMF#1), possibly developed by local artists, in order to ameliorate potential disproportionately high and adverse permanent visual quality effects from the project on EJ communities.

Operations

All Six Build Alternatives

As discussed in Section 3.16, Aesthetics and Visual Quality, visual changes resulting from project operation would result from high-speed trains running on the system, increased activity and traffic on local roadways from passengers arriving at and departing from stations, and ongoing maintenance activities.

However, operation of each of the six Build Alternatives would not result in any adverse visual effects based on the severity of visual changes and viewer sensitivity. As such, this resource topic is not discussed further.

5.7.2.11 Cultural Resources

Construction

Refined SR14 and SR14A Build Alternatives

As described in Section 3.17, Cultural Resources, construction of the Refined SR14 and SR14A Build Alternatives would not result in any adverse effects on cultural resources. While both the Refined SR14 Build Alternative RSA and SR14A Build Alternative RSA include several cultural resources, including the East Branch of the California Aqueduct and the Palmdale Ditch, implementation of IAMFs will ensure that construction of the Refined SR14 and SR14A Build Alternatives would not adversely affect these cultural resources.

E1, E1A, E2, and E2A Build Alternatives

As described in Section 3.17, Cultural Resources, construction of the E1, E1A, E2, and E2A Build Alternatives would not result in any adverse direct effects on cultural resources. While the RSA for the E1, E1A, E2, and E2A Build Alternatives contain several cultural resources, including the East Branch of the California Aqueduct, the Palmdale Ditch, and the Eagle and Last Chance Mine Road, implementation of CUL-IAMF#6, CUL-IAMF#8, and CUL-IAMF#10 will ensure that construction of the E1, E1A, E2, and E2A Build Alternatives would not adversely affect any of these cultural resources. However, construction of the E1, E1A, E2, and E2A Build Alternatives would result in indirect adverse visual effects on the Blum Ranch and Blum Ranch Farmhouse, which are on Aliso Canyon Road in the Acton community, and are not within an EJ population. While the implementation of Mitigation Measure CUL-MM#5 would reduce indirect adverse visual effects on these resources, the indirect visual effects would remain adverse. However, as noted above, the site is not within an EJ population; therefore, there would be no adverse effects on EJ populations.

Operations

Refined SR14 and SR14A Build Alternatives

As discussed in Section 3.17, Cultural Resources, operation of the Refined SR14 and SR14A Build Alternatives would not result in any adverse direct effects on cultural resources. While both the Refined SR14 Build Alternative RSA and the SR14A Build Alternative RSA include several cultural resources, including the East Branch of the California Aqueduct and the Palmdale Ditch, implementation of CUL-IAMF#6, CUL-IAMF#8, and CUL-IAMF#10 will ensure that operation of the Refined SR14 and SR14A Build Alternatives would not adversely affect any of the cultural resources. However, operation of the Refined SR14 and SR14A Build Alternatives would result in indirect adverse noise effects on the historic Pink Motel and Café, which are in an area predominantly composed of EJ populations. However, increases in noise associated with California HSR System operation would not affect the integrity or materially impair the significance of this historical site. Therefore, the Refined SR14 and SR14A Build Alternatives would not have adverse effects on cultural resources within EJ communities. As such, this resource topic is not discussed further.

E1, E1A, E2, and E2A Build Alternatives

As discussed in Section 3.17, Cultural Resources, operation of the E1 and E1A Build Alternatives would adversely affect two cultural resources: the Pink Motel and Café and the Blum Ranch Farmhouse. Effects on the Pink Motel and Café from operation of the E1 and E1A Build Alternatives would be identical to the Refined SR14 and SR14A Build Alternatives described above. The E2, and E2A Build Alternatives would adversely affect one cultural resource: the Blum Ranch Farmhouse. The Blum Ranch Farmhouse is on Aliso Canyon Road in the Acton community and is not within an EJ population.

The E1, E1A, E2, and E2A Build Alternatives would have a portal above ground outside the historic property boundary of Blum Ranch. The Blum Ranch Farmhouse is a residence and therefore is considered a noise-sensitive receptor. Noise associated with operation of the E1, E1A, E2, and E2A Build Alternatives would be audible from the Blum Ranch Farmhouse.

However, the Blum Ranch Farmhouse is far enough away that operational noise from the E1, E1A, E2, and E2A Build Alternatives would not be prominent, given the property's proximity to Aliso Canyon Road. The E1, E1A, E2, and E2A Build Alternatives would not have adverse effects on cultural resources within EJ communities. As such, this resource topic is not discussed further.

5.7.3 Cumulative Effects

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, Cumulative Impacts, discusses the Build Alternatives' contribution to any cumulative impact for each resource area discussed in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures. The following discussion provides additional information on the cumulative impacts that could affect low-income populations and minority 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 facilities. Construction of cumulative projects could result in temporary and permanent disruptions to minority and/or low-income populations during temporary construction activities. If the incremental effects of multiple projects were to combine to create disproportionate and adverse effects on low-income populations and minority populations in specific communities, this would be considered a cumulative effect on EJ populations under NEPA. However, these projects are distributed throughout Los Angeles County, which has 18.4 percent low-income populations and 72.8 percent minority populations (EJ populations). Further, 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 the EJ populations.

Development of planned projects would likely include the implementation of various forms of mitigation to avoid or minimize temporary and permanent cumulative effects on the population as a whole in the cumulative RSA. Remaining effects would be distributed throughout the region and would occur based on the construction timelines of the planned projects under the cumulative condition.

In addition, the Build Alternatives would result in local and regional benefits to the low-income populations and minority populations that constitute a large percentage of the region. These benefits would include improvements in mobility within the region, regional air quality improvements, and new employment opportunities during construction and operations. For a full discussion of these benefits, refer to Section 5.8.4. Because low-income populations and minority populations comprise the majority of the population within the area, these project benefits are likely to also accrue to a greater degree to low-income populations and minority populations.

For these reasons, the Build Alternatives would not cause or contribute to adverse cumulative effects.

5.7.4 Summary of Potential Disproportionately High and Adverse Effects

Table 5-24 summarizes the potential disproportionately high and adverse effects identified in Sections 5.7.2 and 5.7.3, and specifies which EJ communities would be affected at the census block group level before and after application of EJ specific mitigation measures and EJ-IAMFs.

Table 5-24 Summary of Potential Disproportionately High and Adverse Effects on EJ Populations (Before and After EJ-Specific Mitigation Measures and IAMFs)

Environmental Topic	Potential DHAE Conclusion on EJ Communities before EJ-Specific Mitigation Measures and IAMFs						EJ-Specific Mitigation Measures and IAMFs	Potential DHAE Conclusion on EJ Communities after EJ-Specific Mitigation Measures and IAMFs					
	Refined SR14 ¹	SR14A ²	E1 ³	E1A ⁴	E2 ⁵	E2A ⁶		Refined SR14	SR14A	E1	E1A	E2	E2A
Transportation	Potential DHAE (traffic effects from spoils hauling in Sylmar, Pacoima, and Sun Valley)	Potential DHAE (traffic effects from spoils hauling in Sylmar, Pacoima, and Sun Valley)	Potential DHAE (traffic effects from spoils hauling in Pacoima and Sun Valley)	Potential DHAE (traffic effects from spoils hauling in Pacoima and Sun Valley)	None	None	EJ-IAMF#1	None	None	None	None	None	None
Air Quality and Global Climate Change	None for sensitive receptors; potential DHAE (localized air quality exceedances during construction for NO ₂ and PM ₁₀ in Sun Valley) for industrial	None for sensitive receptors; Potential DHAE (localized air quality exceedances during construction for NO ₂ and PM ₁₀ in Sun Valley) for industrial	None for sensitive receptors; Potential DHAE (localized air quality exceedances during construction for NO ₂ and PM ₁₀ in Sun Valley) for industrial	None for sensitive receptors; Potential DHAE (localized air quality exceedances during construction for NO ₂ and PM ₁₀ in Sun Valley) for industrial	Potential DHAE (localized air quality exceedances during construction for NO ₂ and PM ₁₀ in Sun Valley, and PM ₁₀ in Lake View Terrace)	Potential DHAE (localized air quality exceedances during construction for NO ₂ and PM ₁₀ in Sun Valley, and PM ₁₀ in Lake View Terrace)	EJ-IAMF#6 EJ-MM#2	None	None	None	None	None	None
Noise and Vibration	Potential DHAE (construction noise in Pacoima, Sun Valley, Sylmar, and Palmdale; and operational train noise in Sun Valley and Palmdale)	Potential DHAE (construction noise in Pacoima, Sun Valley, Sylmar, and Palmdale; operational train noise in Sun Valley)	Potential DHAE (construction noise in Pacoima, Sun Valley, Sylmar, and Palmdale; operational train noise in Sun Valley and Palmdale)	Potential DHAE (construction noise in Pacoima, Sun Valley, Sylmar, and Palmdale; operational train noise in Sun Valley and Palmdale)	Potential DHAE (construction noise in Sun Valley, Lake View Terrace, and Palmdale; operational train noise in Lake View Terrace and Palmdale)	Potential DHAE (construction noise in Sun Valley, Lake View Terrace, and Palmdale; operational train noise in Lake View Terrace and Palmdale)	EJ-IAMF#1 EJ-IAMF#5 EJ-MM#1	Potential DHAE (operational train noise in Sun Valley)	Potential DHAE (operational train noise in Sun Valley)	Potential DHAE (operational train noise in Sun Valley and south of Palmdale)	Potential DHAE (operational train noise in Sun Valley and south of Palmdale)	Potential DHAE (operational train noise in Lake View Terrace and south of Palmdale)	Potential DHAE (operational train noise in Lake View Terrace and south of Palmdale)
Socioeconomics and Communities	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (community cohesion in Lake View Terrace)	Potential DHAE (community cohesion in Lake View Terrace)	EJ-IAMF#1 EJ-IAMF#2 EJ-IAMF#3 EJ-IAMF#4 EJ-IAMF#5	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (business displacements in Pacoima and Sun Valley)	Potential DHAE (community cohesion in Lake View Terrace)	Potential DHAE (community cohesion in Lake View Terrace)
Aesthetics and Visual Quality	None	None	Potential DHAE (permanent aesthetic effects south of Palmdale)	None	Potential DHAE (permanent aesthetic effects south of Palmdale and in Lake View Terrace)	Potential DHAE (permanent aesthetic effects south of Palmdale and in Lake View Terrace)	EJ-IAMF#3	None	None	None	None	None	None
Cumulative	None	None	None	None	None	None	---	None	None	None	None	None	None

DHAE = disproportionately high and adverse effect. EJ = Environmental Justice

1 For the Refined SR14 Build Alternative, after the implementation of IAMFs and mitigation measures (not including EJ-specific IAMFs and mitigation measures), disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Sylmar (60371061122, 60371061131), Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223).

2 For the SR14A Build Alternative (Preferred Alternative), after the implementation of IAMFs and mitigation measures (not including EJ-specific IAMFs and mitigation measures), disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Sylmar (60371061122, 60371061131), Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223).

3 For the E1 Build Alternative, after the implementation of IAMFs and mitigation measures (not including EJ-specific IAMFs and mitigation measures), disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223), **Aesthetics and Visual Quality (permanent visual quality effects)**: south of Palmdale (60379107071).

4 For the E1A Build Alternative, after the implementation of IAMFs and mitigation measures (not including EJ-specific IAMFs and mitigation measures), disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223).

5 For the E2 Build Alternative, after the implementation of IAMFs and mitigation measures (not including EJ-specific IAMFs and mitigation measures), disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Lake View Terrace (60371032001), **Socioeconomics and Communities (community cohesion)**: Lake View Terrace (60371032001), **Aesthetics and Visual Quality (permanent visual quality effects)**: South of Palmdale (60379107071) and Lake View Terrace (60371032001).

6 For the E2A Build Alternative, after the implementation of IAMFs and mitigation measures (not including EJ-specific IAMFs and mitigation measures), disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Lake View Terrace (60371032001), **Socioeconomics and Communities (community cohesion)**: Lake View Terrace (60371032001), **Aesthetics and Visual Quality (permanent visual quality effects)**: South of Palmdale (60379107071) and Lake View Terrace (60371032001).

In accordance with USDOT Order 5610.2C, if disproportionately high and adverse effects are identified, the action would 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.”

Taking all of these factors into account, the Palmdale to Burbank Project Section Build Alternatives would result in adverse effects that may be appreciably more severe or greater in magnitude on identified low-income and/or minority populations than the adverse effects experienced by non-low-income and/or nonminority populations. These potential disproportionately high and adverse effects would be limited to particular census block groups identified above. As part of the EJ analysis and as discussed above, the Authority identified all practicable and reasonable mitigation measures for the Palmdale to Burbank Project Section Build Alternatives to address adverse effects on minority and/or low-income populations.

The need for an HSR system exists statewide, with densely populated regions of the state contributing to this need. The Palmdale to Burbank Project Section is an essential component of the California HSR System. The capacity of California’s intercity transportation system, including transportation between Palmdale and Burbank, is insufficient to meet existing and future travel demand. The current and projected future transportation system congestion will continue to result in deteriorating air quality, reduced reliability, and increased travel times.

The project’s purpose is to implement the Palmdale to Burbank Project Section of the California HSR System to meet the need outlined above. The California HSR System would construct, maintain, and operate an electrified, high-speed train system, which includes the construction, improvement, upgrade, operation, and maintenance of new and existing facilities and infrastructure necessary to support the system connecting the Palmdale Transportation Center in Palmdale to the Hollywood Burbank Airport in Burbank. When completed, the California HSR System would provide the public with electric-powered HSR service that offers predictable and consistent travel times and facilitates achieving HSR service that meets Proposition 1A travel time requirements between San Francisco and Los Angeles Union Station. In addition, the California HSR System would provide enhanced connections to airports, mass transit, and the highway network from Palmdale to Burbank, and would connect the northern and southern portions of the California HSR System as a part of Phase 1 program development.

As described in Section 5.7, IAMFs and mitigation measures (listed in Section 5.4.2 and Section 5.4.3, respectively), would reduce most of the project effects on minority and/or low-income populations. However, the Authority has determined that, even after applying these measures, there remains potentially disproportionately high and adverse effect on low-income populations for traffic effects from spoils hauling (Refined SR14, SR14A, E1, and E1A Build Alternatives), localized air quality exceedances during construction (all six Build Alternatives), construction noise and operational train noise (all six Build Alternatives), business displacements (Refined SR14, SR14A, E1, and E1A Build Alternatives), and community cohesion (E2 and E2A Build Alternatives), and permanent visual quality effects (SR14A, E1, E1A, E2, and E2A Build Alternatives).

The Authority has developed EJ-specific IAMFs and mitigation measures (described in Section 5.8.1 and Section 5.8.2, respectively) to minimize and/or avoid potentially disproportionately high and adverse effects. As evaluated in Section 5.7, even after the implementation of EJ-specific IAMFs and mitigation measures, there remains potentially disproportionately high and adverse effect on low-income populations for traffic effects from spoils hauling (Refined SR14, SR14A, E1, and E1A Build Alternatives), operational train noise (all six Build Alternatives), business displacements (Refined SR14, SR14A, E1, and E1A Build Alternatives), and community cohesion (E2 and E2A Build Alternatives), and permanent visual quality effects (SR14A, E1, E1A, E2, and E2A Build Alternatives).

5.8 EJ-Specific Measures to Minimize Harm

5.8.1 EJ-Specific Impact Avoidance and Minimization Features

- **EJ-IAMF#1: Authority EJ Ombudsman and Contractor's EJ Liaison** - EJ communities are historically underrepresented, thus requiring special outreach. Prior to final design, the Authority shall create an ombudsman position to address the needs of adversely affected EJ communities, Los Angeles Unified School District's (LAUSD) Broadus Elementary and Roscoe Elementary schools and, upon request, additional private and charter schools. For purposes of all EJ-specific measures (EJ-IAMFs and EJ-MMs), reference to eligible "EJ Communities" shall mean those communities identified in Chapter 5, *Environmental Justice*, Table 5-24 of the Final EIR/EIS for the Refined SR14, SR14A, E1, E1A, E2, and E2A alternatives. In addition, the students of Project alignment-adjacent schools in the above-defined EJ Communities (LAUSD's Broadus Elementary and Roscoe Elementary, and any private/charter schools) are also included in the definition of EJ communities for purposes of these measures. The Authority will also make available resources developed for EJ-IAMFs to any other EJ communities that are identified in Chapter 5 of the EIR/EIS as EJ communities along the alignment, if a specific EJ community so requests. The Authority's final design plans and contract documents shall require the Contractor to establish a full-time EJ liaison to serve as a multilingual single point of contact for the EJ communities. The scope of the Authority's EJ ombudsman and Contractor's EJ liaison responsibilities and duties include those articulated in the other EJ-related IAMFs. These responsibilities include: implementing programs (e.g., the Workforce Development Program, community air quality monitoring), holding community roundtables to obtain ideas for business spotlighting, developing appropriate aesthetic treatments, proposing potential intersection and/or safety improvements, and obtaining community-specific feedback on the following plans not typically reviewed by the general public:
 - Construction Management Plan (SOCIO-IAMF#1)
 - Relocation Mitigation Plan (SOCIO-IAMF#3)
 - Construction Safety Transportation Management Plan (SS-IAMF#1)
 - Safety and Security Management Plan (SS-IAMF#2)
 - Transportation Construction Management Plan (TR-MM#12)
 - Operations Noise and Vibration Technical Memorandum (NV-IAMF#1)

The EJ ombudsman and Contractor's EJ liaison shall have stop work authority in the event of safety concerns and may also apply stop work authority for project-related concerns regarding fugitive dust, construction noise and traffic (e.g., noncompliance with designated truck hauling routes and the CTP). Beginning with final design and throughout the construction phase of the project, the Contractor's EJ liaison shall submit reports (quarterly, at minimum) to the ombudsman providing evidence of compliance with all EJ-IAMFs, maintenance of pedestrian access per TR-IAMF#4, communication of relocation mitigation plan and relocation ombudsman availability (SOCIO- IAMF#3).

During construction, the Contractor's EJ liaison shall provide multilingual notices (e.g., online information, e- blasts, text messaging, voice messaging or mailers) to inform EJ communities (specifically, communities identified in the first paragraph of this IAMF) of the Authority's hotline for reporting community concerns or complaints regarding construction noise and traffic effects and updates. These notices shall be provided two weeks in advance of each planned instance of vehicle, pedestrian, bicycle, transit access, and utility service disruption. Notices shall continue, at a minimum, until the EJ communities receive post-construction guidance with details of how to access and ride the HSR system.

The EJ liaison's report to the ombudsman shall include all concerns and complaints received from EJ communities and measures taken by the Authority or its Contractors to address those concerns and complaints. The Authority's construction Contractor shall implement all

corrective actions communicated by the EJ ombudsman, or their EJ liaison, within a 24-hour period unless written authorization from the EJ ombudsman provides the Contractor with an alternate timeline. The EJ liaison shall also serve as the primary point of contact for LAUSD for schools with construction-related concerns within adversely affected EJ communities (as identified above).

The Authority shall ensure the point of contact has access to the Authority’s contract interpretation and translation services for substantial Limited English Proficiency (LEP) languages in the affected area. Substantial shall be as defined in state LEP law (the Dymally Alatorre Bilingual Services Act). The Authority may also consider contracting with a community organization for substantial LEP communities to assist with outreach.

- **EJ-IAMF#2: Business Spotighting** - To minimize any potential access disruptions or inconveniences to businesses within adversely affected EJ communities (as defined in EJ-IAMF#1) during construction activities, the Authority shall provide assistance to those businesses to maintain visibility during construction, such as providing signage and targeted advertising and marketing campaigns, incentives for construction worker patronage (as applicable), and/or Authority- sponsored community events. Business spotlighting will supplement efforts described in TR- MM#12 and includes street vendors permitted by the City of Los Angeles.
- **EJ-IAMF#3: EJ Community-Inclusive Development of Aesthetic Treatments and Community Cohesion Enhancements** - In addition to the requirements in AVQ-IAMF#1 (Aesthetic Options) and AVQ-IAMF#2 (Aesthetic Review Process), the Contractor’s EJ liaison shall work with the Authority EJ ombudsman to hold community roundtables to seek input on locally-desired aesthetic treatment preferences from the adversely affected EJ communities (as defined in EJ-IAMF#1), possibly developed by local artists.

Treatment options may include streetscape, vegetation screening, consideration of a community mural, and/or beautification tree plantings or plant plantings (such as improvements to an existing community garden or establishment of a new community garden location). When applicable, tree plantings shall involve the Pacoima Beautiful Street Tree Planting/Adopt a Tree Program collaboration with the Los Angeles Conservation Corps. As appropriate, reuse of property purchased by the Authority that are within the EJ communities (as defined in EJ-IAMF#1) shall be considered for plant and/or tree plantings. Specific consideration to plantings at Boulevard Mine shall be given to both, fulfill the requirements of this measure and support the EPA Abandoned Mines Land Program and to implement AVQ-MM#5.

Upon Authority review for compatibility with the Draft Design Opportunities for Local Jurisdictions and Aesthetic Requirements (October 2017) and approval, the identified locally-desired aesthetic treatments shall be included in the final design plans. The Authority’s Contractor shall implement the aesthetic treatments in the construction of HSR infrastructure.

- **EJ-IAMF#4: EJ Business Relocation/Displacement Assistance** - Pursuant to SOCIO-IAMF#3 Relocation Mitigation Plan, the Authority will develop a relocation mitigation plan. The Plan will include a subsection dedicated to addressing adverse effects to businesses in the EJ communities (as defined in EJ-IAMF#1). This subsection shall include a description of measures taken or proposed to offset the adverse effects of business displacements and relocations in EJ communities, including a description of measures to relocate displaced businesses in proximity to their same community. The Authority shall hold community roundtable meetings to seek and consider input from affected EJ communities prior to finalizing the Authority’s Relocation Mitigation Plan.
- **EJ-IAMF#5: EJ Community Post-Construction Transition to Operation** - The Contractor’s EJ liaison shall ensure multilingual notices (e.g., online information, e-blasts, text messaging, voice messaging, or mailers) are distributed to EJ communities (as defined in EJ-IAMF#1), providing an estimated operation commencement date. The notices shall include information regarding underground and aboveground facilities, boarding platforms, ticketing areas,

passenger waiting areas, restrooms, pick-up/drop-off facilities for private automobiles, transit center for buses and shuttles, and surface parking areas. Notices shall clearly describe various modes of access to the HSR system. If available, the notices shall also specify HSR system ticket costs.

- **EJ-IAMF#6: Non-Regulatory Supplemental and Informational Monitoring (NSIM)** - Prior to the start of construction, the Authority shall reference the EPA Air Sensor Toolbox and the South Coast Air Quality Management District Air Quality Sensor Performance Evaluation Center (AQ-SPEC) to propose stationary outdoor air quality sensors and applicable monitoring locations within EJ communities (as identified in EJ-IAMF#1). Data from these air quality sensors could be used for increasing environmental awareness and educating the communities about air quality. The selected sensors will be required, at a minimum, to provide PM_{2.5} community monitoring. It should be noted that the data from these air quality monitors cannot be used for regulatory purposes; however, they could provide the neighborhoods with greater access to publicly accessible, local air quality data.

5.8.2 EJ-Specific Mitigation Measures

EJ-MM#1: Pre-Construction EJ Community Review and Authority EJ Ombudsman Approval of final Construction-Phase Noise Mitigation and Monitoring Measures Program

The Authority's contractor will be required to submit its proposed and draft construction Noise Monitoring Program (required by N&V-MM#1) to the Authority and the Authority's EJ ombudsman (as this position is defined in EJ-IAMF#1). Upon the Authority and the Authority's EJ ombudsman's approval, the Authority's contractor will be required to ensure the draft Noise Monitoring Program (Program) is posted on the Authority's website. The posted, draft Program shall include all the Contractor's proposed construction noise mitigations and its proposed noise monitoring program and shall be provided for community review and input in advance of construction start for community comment. The draft Program shall be posted no later than the advance period determined by the Authority's EJ ombudsman.

Additionally, concurrent with the posting of the proposed draft Program on the Authority's website, the Authority's contractor shall distribute, for public review and comment, a copy of the draft Program to all community, neighborhood, and environmental justice organizations and affected individuals identified by the Authority's EJ ombudsman.

Prior to determining (1) the advance periods for public posting of the Contractor's draft noise mitigations and monitoring program, (2) the noise monitoring locations, and (3) the outreach required by the Contractor for the draft program, the Authority's EJ ombudsman shall conduct direct outreach activities to solicit input from affected communities on their preferences in these three topic areas. Such outreach shall include, at minimum, affected neighborhoods in Pacoima, Sun Valley and any other community that the Authority determines may be affected by potentially disproportionately high and adverse construction noise, absent mitigation.

The Contractor's EJ liaison (as this position is defined in EJ-IAMF#1) and the Authority's EJ ombudsman shall review all public comments received by any posted comment deadline. The Contractor's EJ liaison shall propose to the Authority EJ ombudsman revisions to the draft Program to address substantive comments and concerns received from potentially affected communities. The Authority EJ ombudsman shall make the final determination as to the sufficiency of the revised, draft Program in addressing comments received from affected communities. That final determination shall include the EJ ombudsman's decision on all noise monitoring locations in the Program. The Contractor's EJ Liaison may not finalize or implement the Program (required under N&V MM#1) until written approval from the Authority EJ ombudsman is received.

The above measures are proposed so as to ensure that the Authority's construction noise mitigation and monitoring measures are equitable and that historically underrepresented populations have adequate review and input opportunities.

EJ-MM#2: Pre-Construction Environmental Justice Air Quality Emissions Analysis and Mandatory Community Input on Potential Emissions Reductions and Reduction Exposure Measures

Through a letter agreement between the South Coast Air Quality Management District and the Authority for AQ-MM#1, the Authority committed to submitting an updated construction-phase air quality emissions estimate to the South Coast Air Quality Management District, after the Authority’s receipt of funding for construction of this project section. Additionally, the Authority has committed to best available technology measures and best practices to reduce emissions from project construction. AQ-MM#3 sets goals for the Authority construction contractor’s use of Zero Emission (ZE) and/or Near Zero Emission (NZE) Vehicles and off-road equipment (a minimum goal of 10%).

To ensure that the Authority avoids disproportionate and adverse air quality effects on environmental justice communities, the Authority commits as follows.

Although the Authority’s air quality emissions estimates in this EIR/EIS are conservative and do not model the Authority’s commitment to using latest technologies, the Authority has committed to implement best available technology measures and best practices to reduce emissions from project construction. AQ-MM#3 sets goals for the Authority construction contractor’s use of Zero Emission (ZE) and/or Near Zero Emission (NZE) Vehicles and off-road equipment (a minimum goal of 10%).

Through a letter agreement between the South Coast Air Quality Management District and the Authority for AQ-MM#1, the Authority committed to submitting an updated construction-phase air quality emissions estimate to the South Coast Air Quality Management District, after the Authority’s receipt of funding for construction of this project section.

If the Authority’s updated estimate submitted to the South Coast Air Quality Management District presents exceedances of CAAQs or NAAQs standards, then the Authority shall concurrently prepare and publicly circulate an environmental justice air quality analysis of those emissions exceedances. The environmental justice analysis shall assess whether project section emissions exceedances may disproportionately and adversely affect minority and/or low-income communities and shall also propose all feasible measures to reduce and mitigate any exceedances. The Contractor’s EJ Liaison (as this position is defined in EJ-IAMF#1) shall ensure that the draft environmental justice air quality analysis is distributed to potentially affected communities for review and comment. Organizations receiving the draft analysis shall include the Los Angeles Unified School District and all schools, organizations and individuals identified by the Authority EJ ombudsman.

The draft environmental justice air quality analysis shall:

- Attach a copy of the letter agreement between the South Coast Air Quality Management District and the Authority’s revised emissions estimates submitted to SCAQMD,
- Specifically identify the proposed on-road, off-road, and other construction equipment technology proposed to be used, state whether such technology represents the best available technology, and if no, explain why the best available technology is not feasible,
- State what percentage of the Contractor’s total on-road and off-road construction vehicles and equipment are zero emissions, and
- If zero emissions technology or best available technology is not proposed at percentages that meet AV-MM#3 goals, the Authority’s draft environmental justice air quality analysis shall disclose this fact and shall propose additional feasible emissions reductions measures and/or exposure reduction measures for communities affected by the exceedances.

The draft environmental justice air quality analysis shall be circulated for a minimum 30-day public review period.

The Contractor’s EJ Liaison shall review all timely-submitted public comments and shall propose revisions to its proposed emissions reductions and/or exposure reduction measures, vehicles

and/or equipment to address concerns. The Contractor's EJ Liaison shall revise the draft environmental justice air quality analysis accordingly and submit the final environmental justice air quality analysis to the Authority's EJ ombudsman.

The Authority's EJ ombudsman shall make the final determination as to the adequacy of the Contractor's revisions and as to the adequacy of the revised environmental justice air quality analysis and any additional measures proposed by the Contractor to reduce emissions. The Authority's EJ ombudsman may, in their discretion, require additional public review of the Contractor's proposed revisions. The Authority's Contractor may not begin construction on a job site until written approval from the Authority's EJ ombudsman is received as to the adequacy of the environmental justice air quality analysis and proposed measures to reduce emissions or to reduce exposure to emissions.

5.8.3 Reducing Adverse EJ Effects through Range of Alternatives Refinement and Selection

As previously noted, EJ populations are prevalent in Los Angeles County. As such, any possible alignment between Palmdale and Burbank would likely encounter EJ populations. Although the Build Alternatives for the Palmdale to Burbank Project Section were designed to avoid EJ populations where reasonably possible, avoiding them entirely was not feasible. For the Palmdale to Burbank Project Section, the Authority prepared a Preliminary Alternatives Analysis Report in 2010. This was followed by Supplemental Alternatives Analysis (SAA) Reports in 2011, 2012, 2014, and 2016. Prior to 2016, the alternatives focused on alignments that followed the SR14 freeway from Palmdale to Santa Clarita and then followed the existing Metrolink corridor from Sylmar to Burbank (see Chapter 2, Alternatives, for a detailed discussion of alternatives previously considered). The alignment through the EJ communities in the north part of the San Fernando Valley was met with significant opposition due to its impacts on those communities.

The 2016 SAA Report introduced the Refined SR14 alternative into the project. The Refined SR14 alternative was developed to be less impactful to environmental justice communities than the previously developed SR14 alternatives. Specifically, the Refined SR14 Build Alternative avoided impacts to the City of San Fernando and had reduced impacts to the communities of Sylmar and Pacoima. As documented in the 2016 SAA, the Refined SR14 Build Alternative reduced residential impacts by 8 multifamily homes and 32 single-family homes. Business displacements were reduced by 125 commercial parcels and 85 industrial parcels. The number of residential properties within 2,500 feet of the HSR centerline was reduced by more than 7,000. Following a presentation of the 2016 SAA to the Authority's Board in April 2016, the Refined SR14 Build Alternative was carried forward and the previous SR 14 alternatives were dropped from consideration. The primary reason for these changes was to reduce impacts to EJ communities.

As presented in the 2016 SAA Report the Refined SR14 Build Alternative, as well as the E1 alternative that is identical to the Refined SR14 Build Alternative in the San Fernando Valley, entered the Metrolink corridor in the vicinity of Sheldon Street. At that time the Refined SR14 Build Alternative included a viaduct structure to carry the project up and over the Metrolink tracks so that the HSR line could enter the Metrolink corridor on the southwest side. As the design was further developed in 2017 and 2018, and public meetings were held in 2018, significant input was received from the community and elected officials opposing the viaduct that would carry HSR over Metrolink near Sheldon Street. The primary concerns were noise and visual impacts of having the train elevated in close proximity to residential neighborhoods. As a result, the design was modified in 2018 to bring HSR into the Metrolink corridor on the northeast side (avoiding the need for HSR to cross over Metrolink) and keeping the project at ground level through Sun Valley. This design refinement was incorporated into the design of the Refined SR14 and E1 Build Alternatives when the Palmdale to Burbank Project Section was presented to the Authority's Board at the November 2018 Board meeting. At that meeting the Board adopted the Refined SR14 Build Alternative as the State's Preferred Alternative. While the Board subsequently adopted the SR14A Build Alternative as the State's Preferred Alternative in 2020, it should be

noted that the SR14A Build Alternative is identical to the Refined SR14 Build Alternative in the Pacoima and Sun Valley area.

5.8.4 Offsetting Mitigation Measures

Consistent with USDOT Order 5610.2C, this section considers benefits of the project that may offset the adverse effects summarized in Section 5.7.4, Summary of Adverse Effects. This summary of offsetting benefits is based on a review of the impact analysis in all relevant Chapter 3 sections.

5.8.4.1 Offsetting Project Benefits to EJ Communities

The Authority developed a range of potential community improvements through engagement with the affected jurisdictions, community organizations active in the affected communities, and potential implementing partners. Potential community improvements that could qualify as OMMs 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. OMMs 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.

To be considered for Authority implementation as OMMs, 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 benefits can be demonstrated through an analysis that validates the offsetting reduction in disproportionately high and adverse effects or through community agreement where the impacted community accepts the benefit of the improvement as an OMMs for disproportionately high and adverse effects. The process and evaluation of potential community improvements is described further in Appendix 5-B, Environmental Justice Development of Community Improvements as Offsetting Mitigation.

The improvements listed below in Table 5-25 are proposed as OMMs to offset 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 wherein these effects would occur. Profiles for each of the potential OMMs are included in Appendix 5-B, and contain a description of each measure, location, disproportionately high and adverse effects addressed by the measure, summary of relevant input from communities and local agencies, 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 OMMs.

These four improvements were chosen from the larger list of improvements. The community improvements that were considered, but are not proposed to be advanced as OMMs because they did not meet the criteria described above, are discussed in Appendix 5-B, including the reasons that they are not being advanced.

Secondary Effects Analysis of Proposed Offsetting Mitigation Measures

Like other direct mitigation proposed in this EIR/EIS, the Authority is required to disclose the potential secondary environmental effects of OMMs. That disclosure is summarized in Table 5-26. For proposed OMMs 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 5-26, with implementation of relevant and applicable IAMFs and direct mitigation measures, where necessary, the proposed OMMs 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 5-25 – Summary of Proposed Offsetting Mitigation Measures¹

Community (Census Block Groups) ²	Proposed Measure	Original Source for Idea	Input Provided During Outreach	Reasonable Nexus to Residual DHAEs for Project Alternatives	Applicable Build Alternatives ^{3,4,5,6,7}
Pacoima (60371042042, 60371212102, 60371048221, 60371047031, 60371042041, 60371047031) Sun Valley (60371021051, 60371212222, 60371211021, 60371219003, 6037121210, 60371222002, 60371212101, 60371212221, 60371221223)	OMM #1: Construction Jobs and Opportunities, Training and Workforce Development	Pacoima and Sun Valley Community Meeting	Workforce opportunities Business effect mitigation Hire from local community for construction Restitution plans for displaced businesses Community economic development	Helps to offset socioeconomic effect of business displacement DHAЕ through training and employment opportunities.	Refined SR14, SR14A, E1, E1A, E2, E2A
Pacoima (60371042042, 60371212102, 60371048221, 60371047031, 60371042041, 60371047031) Sun Valley (60371021051, 60371212222, 60371211021, 60371219003, 6037121210, 60371222002, 60371212101, 60371212221, 60371221223)	OMM #2: Community Connectivity Enhancements and Workshop	Pacoima and Sun Valley Community Meeting	Incorporate decorative elements by local artists Carefully incorporating community, instead of dividing Opportunities for beautification Native landscaping	Community-supported pedestrian connectivity improvements will offset community cohesion impacts on Lake View Terrace DHAЕ.	Refined SR14, SR14A, E1, E1A, E2, E2A
Pacoima (60371042042, 60371212102, 60371048221, 60371047031, 60371042041, 60371047031)	OMM #3: Safety and Montague Street Improvements	Pacoima and Sun Valley Community Meeting	Develop a robust safety plan at Montague Street Safety measures around trenches and Montague Street Safety measures in areas where the train is at surface level	Community-supported improvement provides increased safety and connectivity for community to offset community and travel disruptions during construction and operation.	Refined SR14, SR14A, E1, E1A, E2, E2A

Community (Census Block Groups) ²	Proposed Measure	Original Source for Idea	Input Provided During Outreach	Reasonable Nexus to Residual DHAEs for Project Alternatives	Applicable Build Alternatives ^{3,4,5,6,7}
Pacoima (60371042042, 60371212102, 60371048221, 60371047031, 60371042041, 60371047031) Sun Valley (60371021051, 60371212222, 60371211021, 60371219003, 6037121210, 60371222002, 60371212101, 60371212221, 60371221223)	OMM #4: Intermediate Window (SR14-W2), Conveyor Belt Usage Requirements and School Coordination	Pacoima and Sun Valley Community Meeting	Minimize construction effects to local circulation Environmental controls (noise, dust, and other pollutants)	Community-supported improvements to manage construction traffic, noise and dust.	Refined SR14, SR14A, E1, E1A, E2, E2A

¹ See also Table 2-1 in Appendix 5-B. Environmental Justice Development of Community Improvements as Offsetting Mitigation, which is a duplicate of this table.

² The listed communities and census block groups for the proposed OMMs pertain to the SR14A Build Alternative (Preferred Alternative). Table notes 3 through 7 below provide the affected communities and census block groups for the remaining Build Alternatives. Should a separate Build Alternative be selected from the Preferred Alternative, OMMs would be implemented to ameliorate disproportionately high and adverse effects in the communities and census block groups in which they occur for the respective Build Alternative.

³ For the Refined SR14 Build Alternative, after the implementation of IAMFs and mitigation measures, potential disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Sylmar (60371061122, 60371061131), Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223),

⁴ For the E1 Build Alternative, after the implementation of IAMFs and mitigation measures, potential disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223)

⁵ For the E1A Build Alternative, after the implementation of IAMFs and mitigation measures, potential disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Pacoima (60371042042, 60371212102, 60371048221), and Sun Valley (60371021051, 60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Sun Valley (6037121210), **Socioeconomics and Communities (business displacements)**: Pacoima (60371047031, 60371042041) and Sun Valley (60371222002, 60371212101, 60371212221, 60371221223)

⁶ For the E2 Build Alternative, after the implementation of IAMFs and mitigation measures, potential disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Lake View Terrace (60371032002) and Sun Valley (60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Lake View Terrace (60371032001), **Socioeconomics and Communities (community cohesion)**: Lake View Terrace (60371032001), **Aesthetics and Visual Quality (permanent visual quality effects)**: South of Palmdale (60379107071) and Lake View Terrace (60371032001).

⁷ For the E2A Build Alternative, after the implementation of IAMFs and mitigation measures, potential disproportionately high and adverse effects would occur in the following EJ communities (and census block groups): **Transportation (spoils hauling)**: Lake View Terrace (60371032002) and Sun Valley (60371212222), **Air Quality and Global Climate Change (localized construction impacts)**: Sun Valley (60371211021, 60371219003), **Noise and Vibration**: South of Palmdale (60379107071), Lake View Terrace (60371032001), **Socioeconomics and Communities (community cohesion)**: Lake View Terrace (60371032001),

Table 5-26 – Evaluation of Potential Secondary Environmental Effects of Potential Community Improvements

Community	Measure	Proposed	Evaluation of Potential Secondary Environmental Effects
Pacoima and Sun Valley	OMM #1	NA	This measure consists of a workforce program and does not include infrastructure development or construction; therefore, it would not result in physical impacts on the environment.
Pacoima and Sun Valley	OMM #2	Enhanced pedestrian crossings such as sidewalk improvements, street lighting, street trees, and other landscaping	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 encroachment permit requirements, existing laws and regulations, and local ordinances. Accordingly, this measure is not anticipated to result in unmitigable secondary environmental effects.
Pacoima	OMM #3	Montague Street Improvements	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 encroachment permit requirements, existing laws and regulations, and local ordinances. Accordingly, this measure is not anticipated to result in significant secondary environmental effects.

Community	Measure	Proposed Improvement	Evaluation of Potential Secondary Environmental Effects
Pacoima and Sun Valley	OMM #4	NA	<p>To transport appropriate spoils and minimize hauling during peak school traffic hours, this measure consists of a requirement to remove spoils from south to north to allow use a conveyor belt for the project. This measure also includes a requirement to include input from EJ community LAUSD schools within 0.5-mile radius of the alignment (Broadus Elementary School and Roscoe Elementary School), in the development and planning process for various construction plans. These components of the measure consist of a coordination and does not include infrastructure development nor new construction; thus, these components would not result in physical impacts on the environment.</p> <p>Hauling restrictions at the intersections of Bromont Avenue/Filmore Street, Dronfield Avenue/Montford Street and Stratham Street/North Clybourn Avenue are not anticipated to result in significant secondary environmental effects since these streets are not designated hauling routes. In addition, the intersection restrictions would be temporary, would occur entirely within existing transportation rights-of-way, and would be implemented in compliance with encroachment permit requirements and existing laws and regulations and local ordinances.</p>

5.8.4.2 **Additional Offsetting Project Benefits to Both EJ and Non-EJ Communities**

Table 5-27 – summarizes the beneficial effects that would be experienced for each environmental topic area and notes whether or not such benefits would be experienced by EJ populations.

All populations in proximity to the project footprint, including low-income and/or minority populations in the RSA such as those EJ census block groups directly to the north and west of the Burbank Airport Station, would benefit from the HSR Build Alternative as a result of improved regional accessibility.

The Build Alternatives would provide benefits to the regional transportation system by reducing vehicle trips on local freeways through the diversion of intercity trips from road trips to the HSR system. This reduction would be a net benefit to transportation and traffic operations because a reduction in VMT would help maintain or potentially improve the operating conditions of regional roadways. This reduction in future vehicle trips would improve the LOS of the regional roadway system and reduce the overall VMT compared with existing conditions and compared to the No Project Alternative. Because this benefit would be statewide, both EJ and non-EJ populations would experience this net benefit.

Reductions in VMT would have the added benefit of reducing emissions and improving air quality. As discussed in Section 5.7.1.2, operation of the Build Alternatives would result in a reduction of statewide and regional criteria pollutants compared to existing and future No Project baselines, under both the medium- and high-ridership scenarios.¹¹ Statewide emissions would be reduced starting in the opening year of HSR operation and would continue to provide reductions through the horizon year of 2040. Therefore, operations of the six Build Alternatives and the rest of the California HSR System would result in a net benefit to statewide air quality. Both EJ and non-EJ populations would experience this statewide benefit.

The Build Alternatives would also provide a safe and reliable means of intercity travel, operating on a fully grade-separated, dedicated track using contemporary safety, signaling, and ATC systems and would reduce growth in air and surface traffic. The reduction in traffic congestion as a result of the California HSR System would in turn decrease the occurrence of air, vehicular, pedestrian, and cycling accidents. Design of the system also would prevent conflicts with other vehicles, pedestrians, and bicyclists. Overall, the California HSR System would provide a safety benefit for both EJ and non-EJ travelers in the RSA.

On a more local level, the Burbank Airport Station would revitalize and bring economic benefits to the Burbank subsection, which includes both EJ and non-EJ communities. Induced growth associated with the Burbank Airport Station would accelerate the implementation of local development plans in Burbank and provide an opportunity to achieve TOD planning goals. EJ census block groups directly to the north and west of the Burbank Airport Station would be likely to experience this economic benefit. These include the Sun Valley census block groups 60371222002, 60371021051, and 60371021052. As discussed in Section 5.7.2.8, census block group 60371222002 would experience both residential and business displacements under each of the six Build Alternatives.

The project would have both short-term and long-term employment benefits for the region. Construction of the Build Alternatives would generate approximately 80,000 to 85,000 direct, indirect, and induced construction job years.¹² The Authority has implemented a variety of programs to increase both the number and ability of local workers and firms to compete for available HSR construction jobs. As detailed above, it is anticipated that OMM #1: Construction Jobs and Opportunities, Training and Workforce development, could help large numbers of EJ

¹¹ The 2024 Business Plan further reduced the ridership estimates: 2040 Phase 1 medium ridership is projected to be 28.4 million riders annually, and the high ridership is forecasted to be 30.6 million riders (Authority 2024). As a result, the analysis presented in Section 3.3, Air Quality and Global Climate Change, of this Final EIR/EIS would be conservative compared to using the latest ridership forecasts.

¹² A “job-year” is 1 year of employment for one employee.

community members. In addition to construction employment, operation of the Build Alternatives would create approximately 5,400 direct and indirect jobs in Los Angeles County. Such long-term employment benefits would likely be experienced by both EJ and non-EJ populations.

Table 5-27 – Summary of Project Benefits to both EJ Populations and Non-EJ Populations

Environmental Topic	All Build Alternatives
Transportation	Regional and statewide benefits experienced by both EJ and non-EJ populations.
Air Quality and Global Climate Change	Regional and statewide benefits experienced by both EJ and non-EJ populations.
Safety and Security	Regional and statewide benefits experienced by both EJ and non-EJ populations.
Socioeconomics and Communities	Regional short-term and long-term employment benefits experienced by both EJ and non-EJ populations.

EJ = Environmental Justice

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

The proposed OMMs will reduce disproportionately high and adverse effects as discussed by community below. The community areas are shown on Figure 5-B-1 in Appendix 5-B.

- Pacoima Community – This community is located in the San Fernando Valley region of Los Angeles County, northwest of the Sun Valley community and west of the Lake View Terrace community, as shown on Figure 5-B-1 in Appendix 5-B. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse noise effects from train operations and (2) adverse socioeconomics effects due to business displacements for the Refined SR14, SR14A, E1, and E1A Build Alternatives. The Authority is proposing several OMMs in this area:
 - For all six Build Alternatives, per OMM #1: Construction Jobs and Opportunities, Training, and Workforce Development, the Authority will solicit community feedback to minimize adverse effects to jobs associated with business displacements, business access disruptions, and business relocations in the EJ community of Pacoima. While OMM #1 would not directly address business displacements or operational train noise, it would offset disproportionately high and adverse effects on EJ communities by providing training and employment opportunities to disadvantaged workers, and further supporting community workforce development and economic development.
 - For the Refined SR14, SR14A, E1, and E1A Build Alternatives, per OMM #2: Community Connectivity Enhancements and Workshop, the Authority will solicit community feedback to minimize adverse effects pertaining to community cohesion from the implementation of the project alignment and ancillary facilities, which would present a new physical and visual barrier within the EJ community of Pacoima. However, where new physical and visual barriers would occur within the community, access between properties and the local road networks would be maintained. The project would provide adequate roadway overcrossings and undercrossings to facilitate pedestrian, bicycle, and vehicular circulation. Thus, the project would not result in adverse effects related to community cohesion in Pacoima; therefore, there would not be a resulting disproportionately high and adverse effect on minority or low-income populations in the Pacoima community related to community cohesion (refer to Section 5.7.2.8, Socioeconomics and Communities, for further discussion of community cohesion impacts). Thus, these improvements are not being proposed due to a direct connection to a disproportionately high and adverse effect in Pacoima. Instead, the Authority has identified this as an

improvement that would help offset the project's general effects on the community based on the City of Los Angeles' suggestion of funding improvements such as this one.

- For the Refined SR14, SR14A, E1, and E1A Build Alternatives, per OMM #3: Montague Street Improvements, the Authority will solicit community feedback to provide safety benefits for vehicle, bicycle, and pedestrian travelers at the project alignment's intersection with Montague Street in proximity to the proposed tunnel portal located in the EJ community of Pacoima. The project would not result in adverse effects with implementation of IAMFs; therefore, there would not be a resulting disproportionately high and adverse effect on minority or low-income populations related to construction or operational transportation or railroad safety (refer to Section 5.7.2.7, Safety and Security, for further discussion of operational safety impacts). Thus, this improvement is not being proposed due to a direct connection to a disproportionately high and adverse effect in Pacoima. Instead, the Authority has identified this as an improvement that would help offset the project's general effects on the community based on the City of Los Angeles' suggestion of funding improvements such as this one.
- For the Refined SR14, SR14A, E1, and E1A Build Alternatives, per OMM #4: Intermediate Window (SR14-W2), Conveyor Belt Usage Requirements and School Coordination, the Authority will solicit community feedback with LAUSD to minimize adverse traffic, noise, and safety effects from project construction and spoils hauling on LAUSD schools located in the EJ community of Pacoima. The project would not result in adverse effects with implementation of IAMFs and mitigation measures; therefore, there would not be a resulting disproportionately high and adverse on minority or low-income populations related to construction traffic (Refer to Section 5.7.2.1, Transportation, for further discussion of construction traffic effects). Thus, this improvement is not being proposed due to a direct connection to a disproportionately high and adverse effect in Pacoima. The proposed OMM would provide a safety and environmental conditions offset for construction related effects around community schools.
- Sun Valley Community – This community is located in the San Fernando Valley region of Los Angeles County, southeast of the Pacoima community and southwest of the Lake View Terrace community, as shown on Figure 5-B-1 in Appendix 5-B. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse noise effects from train operations and (2) adverse socioeconomic effects due to business displacements for all six Build Alternatives. The Authority is proposing several OMMs in this area:
 - For all six Build Alternatives, per OMM #1: Construction Jobs and Opportunities, Training, and Workforce Development, the Authority will solicit community feedback to minimize adverse effects to jobs associated with business displacements, business access disruptions, and business relocations in the EJ community of Sun Valley. While OMM #1 would not directly address business displacements or operational train noise, it would offset disproportionately high and adverse effects on EJ communities by providing training and employment opportunities to disadvantaged workers, and further supporting community workforce development and economic development.
 - For the Refined SR14, SR14A, E1, and E1A Build Alternatives, per OMM #2: Community Connectivity Enhancements and Workshop, the Authority will solicit community feedback to minimize adverse effects pertaining to community cohesion from the implementation of the project alignment and ancillary facilities, which would present a new physical and visual barrier within the EJ community of Sun Valley. However, where new physical and visual barriers would occur within the community, access between properties and the local road networks would be maintained. The project would provide adequate roadway overcrossings and undercrossings to facilitate pedestrian, bicycle, and vehicular circulation. Thus, the project would not result in adverse effects related to community cohesion in Sun Valley; therefore, there would not be a resulting disproportionately high and adverse effects on minority or low-income populations in the Sun Valley community

- related to community cohesion (refer to Section 5.7.2.8, Socioeconomics and Communities, for further discussion of community cohesion impacts). Thus, these improvements are not being proposed due to a direct connection to a disproportionately high and adverse effect in Sun Valley. Instead, the Authority has identified this as an improvement that would help offset the project's general effects on the community based on the City of Los Angeles' suggestion of funding improvements such as this one.
- For the Refined SR14, SR14A, E1, and E1A Build Alternatives, per OMM #4: Intermediate Window (SR14-W2), Conveyor Belt Usage Requirements and School Coordination, the Authority will solicit community feedback with LAUSD to minimize adverse traffic, noise, and safety effects from project construction and spoils hauling on LAUSD schools located in the EJ community of Sun Valley. The project would not result in adverse effects with implementation of IAMFs and mitigation measures; therefore, there would not be a resulting disproportionately high and adverse on minority or low-income populations related to construction traffic (Refer to Section 5.7.2.1, Transportation, for further discussion of construction traffic effects). Thus, this improvement is not being proposed due to a direct connection to a disproportionately high and adverse effect in Sun Valley. The proposed OMM would provide a safety and environmental conditions offset for construction related effects around community schools.
 - Lake View Terrace Community - This community is located in the San Fernando Valley region of Los Angeles County, east of the Pacoima community and northeast of the Lake View Terrace community, as shown on Figure 5-B-1 in Appendix 5-B. With direct mitigation and project benefits, there would be the following residual disproportionately high and adverse effects: (1) adverse socioeconomic effects due to loss of community cohesion for the E2 and E2A Build Alternatives. The Authority is proposing several OMMs in this area
 - For the E2 and E2A Build Alternatives, per OMM #2: Community Connectivity Enhancements and Workshop, the Authority will solicit community feedback to minimize adverse effects pertaining to community cohesion from the implementation of the project alignment and ancillary facilities, which would present a new physical and visual barrier within the EJ community of Lake View Terrace. As depicted in Figure 5B1, new physical and visual barriers from the at-grade or above-grade Build Alternative footprint with the potential to divide existing communities would affect the community of Lake View Terrace (census block group 60371032001). OMM #2 would partially offset this disproportionately high and adverse effect by providing pedestrian connectivity enhancements supported by the community.

5.9 Environmental Justice Determination

This section analyzes each resource topic for which an adverse effect on EJ populations was identified and provides a determination for whether that adverse effect would be disproportionately high and adverse.¹³ As summarized in Section 5.7.4, adverse effects on EJ populations would occur under the following resource topics: noise and vibration (operational train noise) and socioeconomics (business displacements [Refined SR14, SR14A, E1, and E1A Build Alternatives] and community cohesion effects [E2 and E2A Build Alternatives]),

5.9.1 Noise and Vibration

As discussed in Section 5.7.2.3, each of the Build Alternatives would have adverse effects related to operational train noise. After the implementation of the IAMFs and mitigation measures, the Refined SR14, SR14A, E1, and E1A Build Alternatives would result in residual severe noise effects from train operations for EJ populations in Sun Valley (census block group 6037121210). The Refined SR14, E1, E1A, E2, and E2A Build Alternatives would result in aforementioned

¹³ Adverse effects identified as disproportionately high and adverse effects are not considered as new adverse effects, but rather a restating of the adverse effect on the local communities. Furthermore, the project will implement EJ-Specific IAMFs, mitigation measures, and OMMs to reduce corresponding adverse effects to the respective local communities.

effects for EJ populations south of Palmdale (census block group 60379107071). The E2 and E2A Build Alternatives would also result in aforementioned effects for EJ populations Lake View Terrace (census block group 60371032001). As determined in Section 5.7.2.3, each of the six Build Alternatives would result in potential disproportionately high and adverse noise effects from train operations on low-income communities.

For low-income EJ communities that will potentially experience residual severe train noise effects, even after the implementation of IAMFs, mitigation measures, and EJ-specific measures, the Authority identified additional community enhancement measures for these communities to offset any residual, potential disproportionately high and adverse noise effects. Since 2015, the Authority has engaged and consulted with affected EJ communities within the RSA (please refer to Section 5.6.3 for further information of EJ-specific outreach for the project). Due to concerns over permanent operational train noise, affected communities requested additional job opportunities and priorities from project construction, and additional means to connect their communities.

OMM #1 Construction Jobs and Opportunities, Training, and Workforce Development would help offset residual train operation impacts. Any impacts from train operations would fall on low-income communities. OMM#1 would provide access to pre-apprenticeship classes and hands-on construction training. Impacted low-income EJ communities would likely benefit greatly from those opportunities that would give participants skills they could use their entire lives to increase their earning capacity.

OMM #2: Community Connectivity Enhancements and Workshop would further enhance the quality of life in affected low-income EJ communities. By identifying additional ways to connect sidewalks, this measure would help pedestrian access for community members. By increasing tree plantings, this measure would add shade to ease pedestrian transportation and to enhance the aesthetic appeal of these affected neighborhoods. Several improvements would improve safety and driver awareness of pedestrians, and that would enhance pedestrians' abilities to move through the neighborhoods. Those include the bulb-outs/corner extensions, high-visibility crosswalks, reflective/highly-visibility stop signs, lighting, decorative crosswalks, and pedestrian crosswalk motion sensors. Enhancing the connectivity of the community would provide a meaningful benefit to those communities.

With these offsetting mitigation measures, none of the six Build Alternatives would likely result in disproportionately high and adverse effects related to operational noise on low-income and/or minority populations living within the EJ RSA.

5.9.2 Socioeconomics and Communities

As discussed in Section 5.7.1.8, each of the six Build Alternatives would have adverse effects related to business displacements. For the Refined SR14, SR14A, E1, and E1A Build Alternatives, these effects would occur in Pacoima and Sun Valley, which predominantly comprise EJ census block groups, and Burbank within non-EJ census block groups.¹⁴ For the E2 and E2A Build Alternatives, adverse effects related to business displacements would occur in Burbank, Shadow Hills and Sun Valley. While none of the Burbank and Shadow Hills business displacements would occur in EJ census block groups, most of the business displacements in Sun Valley would be in EJ census block groups.¹⁵ As evaluated in Section 5.7.2.8, after the implementation of IAMFs and mitigation measures, the Refined SR14, SR14A, E1, and E1A Build Alternatives would result in potential disproportionately high and adverse effects on low-income

¹⁴ The Refined SR14, SR14A, E1, and E1A Build Alternatives would have adverse effects from business displacements in the following EJ census block groups: *Pacoima*: 60371047031, 60371042041 (Window Option W2 Only); *Sun Valley*: 60371222002, 60371212101, 60371212221, and 60371221223.

¹⁵ The E2 and E2A Build Alternatives would have adverse effects from business displacements in the following EJ census block groups: Sun Valley: 60371211023 and 60371222002; they would also have adverse effects from loss of cohesion in the following EJ census block group: Lake View Terrace: 60371032001.

populations for business displacements. The E2 and E2A Build Alternatives would not result in disproportionately high and adverse effects for business displacements.

As discussed in Section 5.8.4, the project would have both short-term and long-term economic benefits related to employment that are expected to largely benefit EJ populations. Additionally, the Authority will implement OMM #1, Construction Jobs and Opportunities, Training, and Workforce Development, to solicit community feedback to minimize adverse effects to jobs associated with business displacements, business access disruptions, and business relocations in the EJ communities of Pacoima and Sun Valley (for the Refined SR14, SR14A, E1, and E1A Build Alternatives), and Lake View Terrace (for the E2 and E2A Build Alternatives). OMM #1 would offset socioeconomic disproportionately high and adverse effects on EJ communities by providing training and employment opportunities to disadvantaged workers, and further supporting community workforce development and economic development. The Authority will also implement OMM #3: Safety and Montague Street Improvements. That measure would require the Contractor's EJ liaison to work with the Authority EJ ombudsman to hold community roundtables to seek input on locally desired safety improvements at Montague Street (in Pacoima) and in all neighborhoods identified in Table 2-1 of this Appendix and Table 5-25 of Chapter 5 for this OMM, prior to the development 60% Design Plans. Feasible safety improvements shall be considered by the Authority (e.g., traffic calming such as speed humps/tables, tree planting, sidewalk continuity improvements, bulb-outs/corner extensions, painted crosswalks, reflective/highly visible stop signs, reduced speed limits) for incorporation into project plans, acknowledging limited right-of-way space of approximately 40 feet from curb to curb. Although these OMMs would not directly mitigate effects of the business displacements in low-income communities, they would benefit the members of those communities. Therefore, the Authority has concluded that this effect would not be disproportionately high and adverse.

In addition to business displacements, the E2 and E2A Build Alternatives would have adverse effects related to loss of community cohesion in Lake View Terrace.¹⁶ The loss of cohesion would result from residential displacements occurring in the middle of an established community. However, access between properties and the local road network would be maintained because the project would provide adequate roadway overcrossings and undercrossings to facilitate pedestrian, bicycle, and vehicular circulation. Additionally, SO-MM#2 will require special outreach to affected residential neighborhood and community residents, community organizations, and local officials, as well as require the Authority's evaluation of the community's modified access, to enable the Authority to maintain community cohesion. On gathering feedback from the community, the Authority will use the input to inform the development of enhancements to ameliorate effects associated with community cohesion and community division. The Authority will be responsible for implementing the measures to reduce effects through project design and through the long-term management of the measures, which will involve documenting the desired design concepts, incorporating them into the final design, and facilitating ongoing maintenance. Furthermore, the Authority will implement OMM #2: Community Connectivity Enhancements and Workshop, to solicit community feedback to minimize adverse effects pertaining to community cohesion from the implementation of the project. Feasible enhancements shall be considered by the Authority (e.g., sidewalk continuity improvements, tree planting, bulb-outs/corner extensions, painted crosswalks, reflective/highly visible stop signs, lighting, decorative crosswalks, or pedestrian crosswalk motion sensors) for implementation and incorporated into project plans. OMM #2 would offset this disproportionately high and adverse effect by providing pedestrian connectivity enhancements supported by the community. Therefore, the Authority has concluded that this effect would not be disproportionately high and adverse.

5.9.3 Summary of Determinations

Table 5-28 provides a summary of the Authority's final determinations regarding disproportionately high and adverse effects on low-income and/or minority populations by resource topic for each of the six Build Alternatives. As discussed in Section 5.7.2, the degree

¹⁶ Census block group 60371032001.

and locations of effects on each affected resource vary for each Build Alternative; however, the Authority has determined that each of the six Build Alternatives would not result in disproportionately high and adverse effects on minority or low-income populations, with the addition of IAMFs, mitigation measures, OMMs, and project benefits, pursuant to NEPA and USDOT Order 5610.2C.

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Table 5-28 Summary of Final Environmental Justice Determinations

Environmental Topic with Adverse effects on EJ Populations	Final Disproportionately High and Adverse EJ Effect Determination					
	Refined SR14	SR14A	E1	E1A	E2	E2A
Noise and Vibration	No	No	No	No	No	No
Socioeconomics and Communities	No	No	No	No	No	No

EJ = Environmental Justice

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In accordance with USDOT Order 5610.2C, if disproportionately high and adverse effects are identified, the action would 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.”

Taking all of these factors into account, the Palmdale to Burbank Project Section Build Alternatives would not result in adverse effects that may be appreciably more severe or greater in magnitude on identified low-income and/or minority populations than the adverse effects experienced by non-low-income and/or nonminority populations. As part of the EJ analysis and as discussed above, the Authority identified all practicable and reasonable mitigation measures for the Palmdale to Burbank Project Section Build Alternatives to address adverse effects on minority and/or low-income populations.

The need for an HSR system exists statewide, with densely populated regions of the state contributing to this need. The Palmdale to Burbank Project Section is an essential component of the California HSR System. The capacity of California’s intercity transportation system, including transportation between Palmdale and Burbank, is insufficient to meet existing and future travel demand. The current and projected future transportation system congestion will continue to result in deteriorating air quality, reduced reliability, and increased travel times.

The project’s purpose is to implement the Palmdale to Burbank Project Section of the California HSR System to meet the need outlined above. The California HSR System would construct, maintain, and operate an electrified, high-speed train system, which includes the construction, improvement, upgrade, operation, and maintenance of new and existing facilities and infrastructure necessary to support the system connecting the Palmdale Transportation Center in Palmdale to the Hollywood Burbank Airport in Burbank. When completed, the California HSR System would provide the public with electric-powered HSR service that offers predictable and consistent travel times and facilitates achieving HSR service that meets Proposition 1A travel time requirements between San Francisco and Los Angeles Union Station. In addition, the California HSR System would provide enhanced connections to airports, mass transit, and the highway network from Palmdale to Burbank, and would connect the northern and southern portions of the California HSR System as a part of Phase 1 program development.

As described in Section 5.7, IAMFs and mitigation measures (listed in Section 5.4.2 and Section 5.4.3, respectively) as well as EJ-specific IAMFs and mitigation measures (described in Section 5.8.1 and Section 5.8.2, respectively) would reduce or mitigate most of the project’s adverse effects on minority and/or low-income populations. Additionally, as described in Section 5.8.4, the Authority has identified OMMs that have a reasonable nexus to residual disproportionately high and adverse effects to offset these effects. After consideration of direct mitigation, project benefits, and OMMs, the Authority has concluded that, after applying these measures, no disproportionately high and adverse effect on minority and/or low-income populations would occur from the project.

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