

3.15 Parks, Recreation, and Open Space

3.15.1 Introduction

This section describes the reasonably foreseeable environmental effects on parks, recreation, and open space with implementation of the Palmdale to Burbank Project Section. This section describes the regulatory setting as it relates to parks, recreation, and open space; identifies impacts that occur with project implementation; discusses impact avoidance and minimization features (IAMF) designed to avoid and minimize effects on public parks, recreation, and open space resources; and identifies mitigation measures to be implemented by the Palmdale to Burbank Project Section to address environmental impacts.

For the purposes of this analysis, recreation resources include parks and open spaces; the Angeles National Forest (ANF), including the portion of the San Gabriel Mountain National Monument (SGMNM) that is within the ANF; school facilities available for public activities outside of school operating hours; greenbelts; wilderness areas; wildlife and waterfowl refuges; hiking, equestrian, and multipurpose trails (but does not include bicycle lanes and/or routes); and public sports fields or recreational facilities. On-street bicycle routes, unless identified as recreational facilities by jurisdictions, are not included in this analysis. Similarly, Class II Bike Lanes are considered transportation facilities and are not included in this analysis.

The following resource sections in this this Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) provide additional information related to parks, recreation, and open space resources:

- Section 3.2, Transportation, analyzes impacts on non-motorized modes of travel (i.e., bicycle and pedestrian circulation).
- Section 3.3, Air Quality and Global Climate Change, analyzes localized air quality impacts on sensitive land use types, including parks and open spaces.
- Section 3.4, Noise and Vibration, analyzes localized noise impacts on sensitive land use types, including parks and open spaces.
- Section 3.7, Biological Resources and Wetlands, analyzes impacts on protected natural habitats within parks and open space facilities.
- Section 3.8, Hydrology and Water Resources, analyzes impacts of tunnel construction on surface and subsurface hydrologic resources.
- Section 3.11, Safety and Security, describes measures addressing security fencing and wildfires.
- Section 3.12, Socioeconomics and Communities, incorporates the findings from this analysis
 that are relevant to the broader social impacts that can occur as a result of decreased access
 to and availability of recreation resources that function as community centers to local
 communities.
- Section 3.13, Station Planning, Land Use, and Development, analyzes direct land use acquisitions and temporary easements required for construction of the Palmdale to Burbank Project Section.
- Section 3.16, Aesthetics and Visual Quality, analyzes visual impacts on sensitive viewer groups, including users of parks and open space facilities within the Palmdale to Burbank Project Section visual corridor.
- Section 3.18, Regional Growth, analyzes how the Build Alternatives lead to an increase in population and job growth and how this growth impacts the areas surrounding the Palmdale to Burbank Project Section.



- Section 3.19, Cumulative Impacts, analyzes cumulative effects resulting from implementation
 of the Palmdale to Burbank Project Section in combination with other past, present, and
 reasonably foreseeable future projects that may contribute to impacts on parks, recreation,
 and open space resources.
- Chapter 4, Draft Section 4(f) and Section 6(f) Evaluation, includes an analysis of impacts on parks and recreational facilities that qualify for protection under the provisions of Section 4(f) of the Department of Transportation Act and Section 6(f) of the Land and Water Conservation Fund Act. The conclusions in Chapter 4 are consistent with the conclusions in this parks, recreation, and open space analysis, but are tailored to the prescribed evaluation criteria under the Section 4(f) and 6(f) regulations.

The following technical appendices provide more detailed information:

- Appendix 2-H, Regional and Local Policy Consistency Analysis, provides a Regional and Local Policy Consistency Table, which lists the parks, recreation, and open space goals and policies applicable to the Palmdale to Burbank Project Section and notes the Build Alternatives' consistency or inconsistency with each.
- Appendix 2-E, Impact Avoidance and Minimization Features, lists IAMFs included as applicable in each of the six Build Alternatives for purposes of the environmental impact analysis.
- Appendix 3.1-B, United States Forest Service (USFS) Policy Consistency Analysis, assesses
 the consistency of the Palmdale to Burbank Project Section with applicable laws, regulations,
 plans, and policies governing proposed uses and activities within the ANF and the SGMNM.

The following specific concerns raised by stakeholders, agencies, and the public about Palmdale to Burbank Project Section impacts on parks and recreation resources have been taken into consideration by the California High-Speed Rail Authority (Authority) and addressed in Section 3.15.6:

- The Pacific Crest Trail Association expressed concern about the Refined SR14 Build Alternative intersecting with the Pacific Crest Trail (PCT) southeast of Vasquez Rocks County Park.
- The USFS, an agency of the U.S. Department of Agriculture, expressed concern about the alignment tunneling that would traverse beneath portions of the ANF, including the SGMNM.
- Residents of the foothill communities (Kagel Canyon, Lake View Terrace, Shadow Hills, and Sunland-Tujunga) expressed concern about the impacts of the Palmdale to Burbank Project Section on regional and local trails.

3.15.1.1 Definition of Resources

The following is a list of definitions for the recreational resources analyzed in this Draft EIR/EIS:

- Parks—Parks refer to publicly owned properties set aside for recreational use by the public
 and maintained in a natural or landscaped state. A park is sometimes a large area of land
 with grass and trees, sports fields or courts, or play equipment, with accessory amenities like
 parking, water fountains, and restrooms, which are maintained for public use and enjoyment.
- Recreation—Recreation is a pastime, diversion, exercise, or other activity affording
 relaxation and enjoyment. Areas used for recreation generally include public parks and open
 spaces, including greenbelts, pedestrian and off-street bicycle trails, playfields, and school
 district play areas available for public use during nonschool hours.
- **Open Space**—Open space is any open piece of land that is undeveloped and accessible to the public. Open space is generally an area that is partially covered with grass, trees, shrubs, or other vegetation and does not contain buildings or other built structures.



3.15.2 Laws, Regulations, and Orders

3.15.2.1 Federal

Section 4(f) of the United States Department of Transportation Act (23 United States Code [U.S.C.] 138 and 49 U.S.C. 303)

Section 4(f) of the U.S. Department of Transportation Act declares, "It is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." It specifies that the Secretary may approve a transportation program or project (other than any project for a park road or parkway under 23 U.S.C. 204) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if (1) there is no prudent and feasible alternative to using that land and (2) the program or project includes all possible planning to minimize harm to the Section 4(f) property resulting from the use.

In addition, 49 U.S.C. 303(d) sets standards for concluding *de minimis* impacts for Section 4(f) resources. In general, a *de minimis* impact is a minimal impact on a Section 4(f) resource that is not considered adverse to the statute's preservationist purpose. For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact determination can be made after public notice and opportunity to comment where the Authority finds an impact that would not adversely affect the qualities or activities that give the property protection under Section 4(f) and where the Federal Railroad Administration (FRA) receives written concurrence in that finding from the official with jurisdiction over the resource.¹

Section 6(f) of the Land and Water Conservation Fund Act (16 U.S.C. 460I-8(f) and 36 Code of Federal Regulations Part 59.1)

State and local governments often obtain grants through the Land and Water Conservation Fund Act to acquire or make improvements to parks and recreation areas. Section 6(f) of the act prohibits the conversion of property acquired or developed with these grants to a nonrecreational purpose without the approval of the United States Department of the Interior's National Park Service. Section 6(f) directs the Department of the Interior to ensure that replacement lands of comparable value and function, location, and usefulness are provided as conditions to such conversions.

Wilderness Act (16 U.S.C. 1131-1136)

The Wilderness Act established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas." The system is to be administered for the use and enjoyment of the American people in such manner as would leave those areas unimpaired for future use as wilderness and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.

National Trails System Act (Public Law 90-543, as amended through Public Law 109-418)

The National Trails System Act instituted a national system of recreation, scenic, and historic trails by designating the Appalachian Trail and the PCT as the initial components of that system and by prescribing the methods and standards according to which additional components may be added to the system.

¹ The Authority is responsible for compliance with Section 4(f), in lieu of the FRA, pursuant to a memorandum of understanding under which FRA assigned those responsibilities to the Authority in accordance with 23 U.S.C. 327 (Authority 2019).



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

All permanent acquisition of property for the high-speed rail (HSR) improvements, including any federally funded improvements, will be conducted by the Authority in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) of 1970 as amended. The Uniform Act 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.

The Uniform Act establishes minimum standards for federally funded programs and projects that require the acquisition of real property. The Uniform Act's protections and assistance apply to the acquisition, rehabilitation, or demolition of real property for federal or federally funded projects. The conditions of acquisition and compensation for, or replacement or enhancement of, other park property for any park, recreation, or school play areas acquired for the HSR improvements will be developed by the Authority in consultation with the owner/operator of each affected property.

United States Forest Service Authorities

Parks, recreation, and open space resources within the ANF, including the SGMNM, are regulated pursuant to several federal laws and their implementing regulations, as well as policies, plans, and orders. The primary laws governing parks, recreation, and open space within USFS lands are the Federal Land Policy and Management Act, the National Forest Management Act, and the Antiquities Act of 1906. Appendix 3.1-B, USFS Policy Consistency Analysis, provides an analysis of the consistency of the six Build Alternatives with these laws, regulations, policies, plans, and orders.

3.15.2.2 State

California Public Park Preservation Act (California Public Resources Code Section 5400–5409)

The California Public Park Preservation Act provides that a public agency acquiring public parkland for non-park use must either pay compensation that is sufficient to acquire equivalent substitute parkland or provide substitute parkland of comparable characteristics.

California Department of Fish and Wildlife Ecological Reserves (California Fish and Game Code Section 1580 et seq. and 14 California Code of Regulations [Section 630)

This legislation specifies areas as ecological reserves and establishes protections for resources in these areas.

3.15.2.3 Regional and Local

All city, county, and regional land use and transportation plans, and municipal codes with jurisdictions within the resource study area (RSA) were consulted for this analysis. Table 3.15-1 provides an overview of the applicable regional and local general plans.



Table 3.15-1 Regional and Local Policies Considered

Regional/Local Plan	Summary
Regional Plan	
Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (2016)	The RTP is a long-range transportation plan that is developed and updated by SCAG every 4 years that provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project out over a 20-year period, the RTP considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address our mobility needs. The SCS is an element of the RTP that integrates land use and transportation strategies to achieve California Air Resources Board emissions reduction targets. In particular, the RTP/SCS calls for investment of the HSR system and supports an HSR connection to Hollywood Burbank Airport.
RTP/SCS Amendment No. 2 (2017)	SCAG amended the RTP/SCS in 2017 to include the California HSR System in the list of modeled projects.
Los Angeles County	
Los Angeles County Airport Land Use Plan (2004)	This plan defines airport influence areas and runway protection zones for the 11 Los Angeles County general aviation airports. The land use planning area for four airports extends into the land use study area for one or more rail alignments (Palmdale Airport/United States Air Force Plant 42, Agua Dulce Airpark, and the Hollywood Burbank Airport). The plan includes policies to ensure that new development near airports is compatible in terms of use, height, and sensitive receivers. The plan identifies areas that are subject to noise impacts and safety hazards (height restrictions and approach surface runway protection zones).
Los Angeles County General Plan 2035 (2015)	The Land Use Element contains general conditions and standards to guide development decision-making in the absence of applicable community-level planning. The goals and policies address protection of natural resources and rural character, infill/transit-oriented development, and new passenger rail rights-of-way.
Los Angeles County Antelope Valley Area Plan (2015)	This plan covers an approximately 1,800-square-mile area that includes portions of the Mojave Desert and most of the San Gabriel Mountains and ANF. The plan's recent update greatly expanded the county's significant ecological areas in the Antelope Valley. The plan includes policies aimed at expanding transportation options that reduce automobile dependence. The plan also encourages and supports development of the California HSR System, with a station in Palmdale to provide links to Northern California and Southern California.
City of Palmdale	
City of Palmdale General Plan (1993)	The Palmdale Land Use Element guides long-range growth and development. It contains land use goals, objectives, and policies for long-term development; guides day-to-day land use decision-making; and establishes land use classifications for land within Palmdale. The plan also encourages the connection of Palmdale Regional Airport to Los Angeles International Airport via HSR.
City of Palmdale Avenue S Corridor Area Plan (1998)	This plan establishes goals, objectives, and policies to help create a cohesive neighborhood with orderly development; provide for adequate circulation and infrastructure; protect public safety from seismic activity and other hazards; and enhance the streetscape through landscaping and design standards.



Regional/Local Plan	Summary
City of Los Angeles	
Arleta-Pacoima Community Plan (1996)	The Arleta-Pacoima Community Plan Area is part of the City of Los Angeles General Plan. It consists of five major subareas: Arleta, Pacoima, Hansen Dam, Northeast Valley Enterprise Zone, and Earthquake Disaster Assistance Project Area. The plan area contains a mix of residential, commercial, industrial, open space, and public facility land use designations. The largest share of land use within the plan area is residential land consisting primarily of low-density residential development.
Sylmar Community Plan (1997)	The Sylmar Community Plan is part of the City of Los Angeles General Plan. The plan prioritizes the preservation and enhancement of existing residential neighborhoods and improving economic vitality.
Sunland-Tujunga-Lake View Terrace-Shadow Hills-East La Tuna Canyon Community Plan (1997)	The Sunland-Tujunga-Lake View Terrace-Shadow Hills-East La Tuna Canyon Community Plan area is part of the City of Los Angeles General Plan area. The plan area is predominantly composed of open space/vacant land with low density-residential stretching across the center, and a small corridor of commercial land with concentrations of multifamily residential intermixed with commercial uses near Foothill Boulevard. The plan contains policies to protect open space from inconsistent uses as well as to preserve single-family residential neighborhoods.
Sun Valley-La Tuna Canyon Community Plan (1999)	The Sun Valley-La Tuna Canyon Community Plan is part of the City of Los Angeles General Plan. It covers approximately 17 square miles of land. The plan identifies the most significant planning and land use issues and opportunities encompassing single-family residential neighborhoods, open space, and industrial uses in the community.
City of Los Angeles General Plan (2001)	The City of Los Angeles General Plan is a comprehensive, long-range declaration of purposes, policies, and programs for development within Los Angeles. It contains 11 elements: 10 citywide elements and 1 land use element 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.
San Gabriel/Verdugo Mountains Scenic Preservation Specific Plan (2003)	The San Gabriel/Verdugo Mountains Scenic Preservation Specific Plan is intended to preserve, protect, and enhance the unique natural and cultural resources of the plan area by protecting prominent ridgelines, biological resources, scenic highway corridor viewsheds, and equestrian-oriented districts.
General Plan Mobility Plan 2035 (2016)	The Mobility Plan provides the policy foundation for achieving a transportation system that balances the needs of all road users. The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how future generations of the city's residents will interact with their streets. The Mobility Plan includes goals that define the city's high-level mobility priorities related to safety, infrastructure, access, collaboration and communication, and clean environments and healthy communities. Specifically relevant to the HSR system are policies that (1) promote equitable land use decisions that result in fewer vehicle trips; and (2) balance on-street and off-street parking supply with other transportation and land use objectives.
City of Burbank	
Burbank 2035 General Plan (2013)	This plan establishes policies to guide future development and designates appropriate locations for different land use designations, including open space, parks, residences, commercial, industry, schools, and other public uses. Additionally, the plan supports an efficient public transit network, including HSR through Burbank.

Sources: City of Burbank, 2013; City of Los Angeles, 1996, 1997a, 1997b, 1999, 2001, 2003, 2016; City of Palmdale, 1992, 1993, 1998; Los Angeles County, 2004, 2015a, 2015b; SCAG, 2016, 2017

ANF = Angeles National Forest; HSR = high-speed rail; RTP = Regional Transportation Plan; SCAG = Southern California Association of Governments; SCS = Sustainable Communities Strategy



3.15.3 Consistency with Plans and Laws

As indicated in Section 3.1.4.3, Consistency with Plans and Laws, the California Environmental Quality Act (CEQA) and Council on Environmental Quality regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws. As such, this Draft 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 technical memorandum to demonstrate how construction impacts to parks, recreation, and open space resources will be maintained below applicable standards.

Appendix 2-H provides a Regional and Local Policy Consistency Table that lists goals and policies applicable to parks, recreation, and open space resources within the Palmdale to Burbank Project Section RSA and notes the consistency or inconsistency with each of the six Build Alternatives. The Authority reviewed nine plans. Each of the six Build Alternatives are consistent with 13 policies, partially consistent with eight policies, and inconsistent with none of the policies considered.

3.15.4 Methods for Evaluating Impacts

The evaluation of impacts on parks. recreation, and open space resources is a requirement of the National Environmental Policy Act (NEPA) and CEQA. The following sections summarize the RSA and the methods used to analyze impacts on these resources.

3.15.4.1 Definition of Resource Study Area

As defined in Section 3.1, Introduction, RSAs are the geographic boundaries in which the environmental investigations specific to each resource topic were created. The RSA includes each of the six Build Alternative footprints, including the Burbank Airport Station, temporary construction areas, or other land temporarily used or permanently acquired to implement the Palmdale to Burbank Project Section. The RSA does not include park, recreation, and open space resources in areas where bored tunnels would be deep enough that surface resources would not experience physical impacts.² The RSA does include areas in and around where tunnels would have surface components, such as adits or tunnel portals. Figure 3.15-1 through Figure 3.15-4 illustrate the RSA for parks, recreation, and open space resources.

As a means to address both physical and nonphysical impacts, such as those related to air quality, noise, vibration, and visual effects, the RSA extends 1,000 feet from the edge of the Build Alternative footprint and from any roads. This analysis also considers parks and recreational facilities more than 1,000 feet from the six Build Alternatives that may be exceptionally sensitive to noise or visual impacts (i.e., the Tujunga Ponds Wildlife Sanctuary). Although the distance from the centerline is not used to establish the RSA, the text notes how far the resources are from the Build Alternative alignment centerline for context.

California High-Speed Rail Authority

² Section 3.8, Hydrology and Water Resources, includes a tunnel construction RSA to analyze potential indirect hydrologic effects within the ANF, including the SGMNM, and associated hydrogeological conditions caused by tunnel construction. Hydrogeological changes that could result in surface effects to resources are analyzed in full in Section 3.8, Hydrology and Water Resources.



The RSA for the six Build Alternatives is the same for the Burbank Subsection because the six Build Alternatives would have the same footprints in this area. Thus, in Section 3.15.5, the Build Alternatives are discussed individually within the Central Subsection and collectively within the Burbank Subsection.

3.15.4.2 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 IAMF was incorporated into the parks, recreation, and open space analysis.

PK-IAMF#1: Parks, Recreation, and Open Space—This IAMF describes the Authority's
commitment to minimizing impacts on parks, recreation, and open space. Prior to
construction, the contractor will prepare a technical memorandum that identifies project
design features to be implemented to minimize impacts on parks, recreation, and open
space.

In addition to PK-IAMF#1, the following IAMFs are applicable to parks, recreation, and open space.

- LU-IAMF#3: Restoration of Land Used Temporarily during Construction
- AQ-IAMF#1: Fugitive Dust Emissions
- NV-IAMF#1: Noise and Vibration
- TR-IAMF#2: Construction Transportation Plan
- HYD-IAMF#3: Prepare and Implement a Construction Stormwater Pollution Prevention Plan
- **HYD-IAMF#5:** Tunnel Boring Machine Design Features
- HYD-IAMF#6: Tunnel Lining Systems
- **HYD-IAMF#7**: Grouting
- **SS-IAMF#1:** Construction Safety Transportation Management Plan
- **SOCIO-IAMF#2:** Compliance with Uniform Relocation Assistance and Real Property Acquisition Policies Act

This environmental impact analysis considers these IAMFs as part of the project design. Within Section 3.15.6, each impact narrative describes how these project features are applicable and, where appropriate, effective at avoiding or minimizing potential impacts.



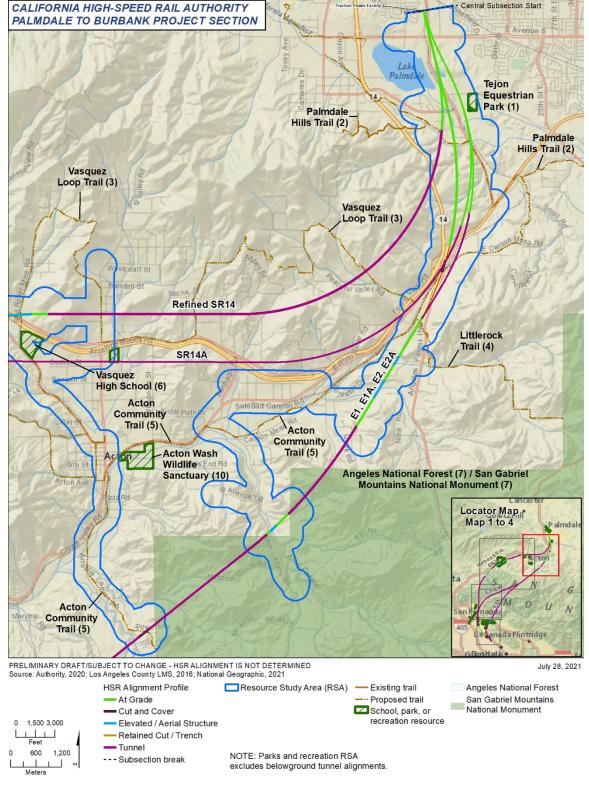


Figure 3.15-1 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 1 of 4)



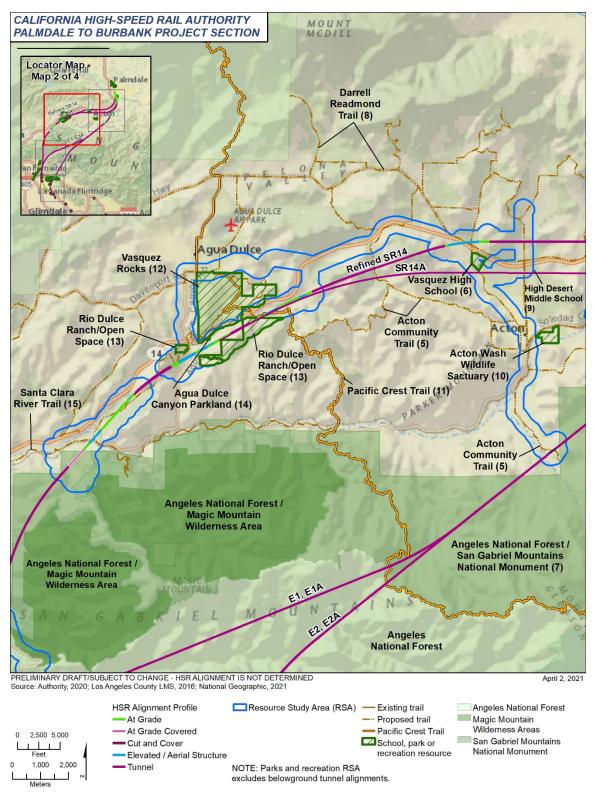


Figure 3.15-2 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 2 of 4)



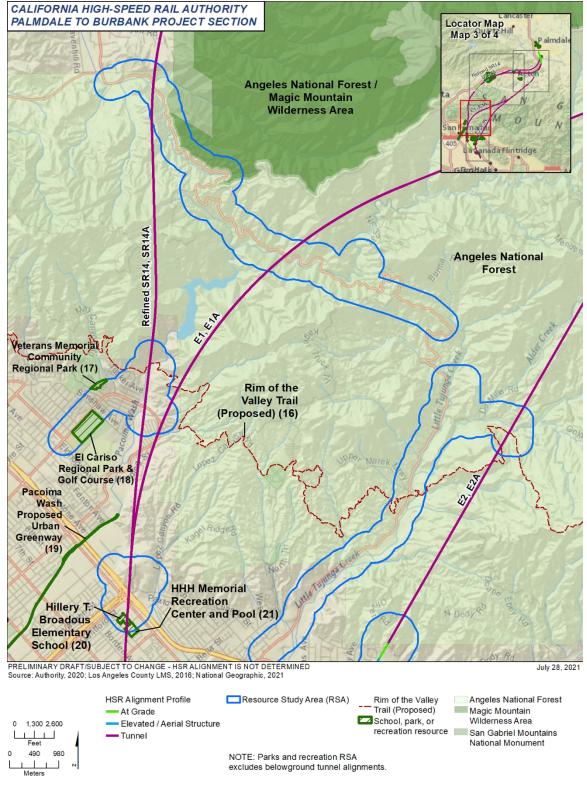


Figure 3.15-3 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 3 of 4)



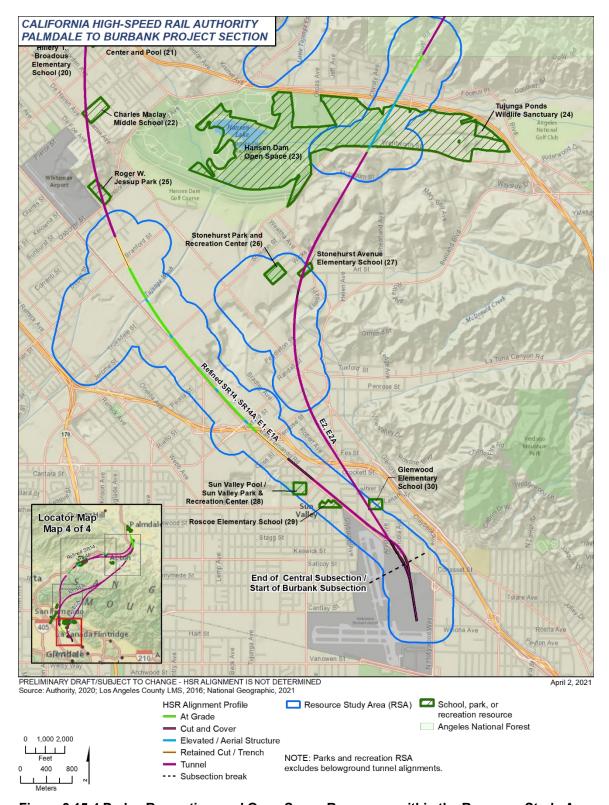


Figure 3.15-4 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 4 of 4)



3.15.4.3 Methods for NEPA and CEQA Impact Analysis

Overview of Impact Analysis

This section describes the sources and methods the Authority used to analyze potential project impacts associated with each of the six Build Alternatives on parks, recreation, and open space resources. These methods apply to both NEPA and CEQA analyses unless otherwise indicated. Refer to Section 3.1.4.4, Methods for Evaluating Impacts, for a description of the general framework for evaluating impacts under NEPA and CEQA.

This analysis considers two general categories of project effects on parks, recreation, and open space resources: (1) construction impacts, and (2) operations impacts. These two categories are further divided by types of impacts or activities with potential to result in physical impacts or other disruptions to the resource. Physical impacts include activities with potential to physically affect the resources within the study area (i.e., acquisitions of park and recreational land, the creation of new barriers, or changes in access to the resource). Other impacts include disruptions in established community and visitor use of the resources (i.e., increased or decreased use) due to increases in fugitive dust emissions, visual obtrusions, and noise and vibration nuisance as a result of the Palmdale to Burbank Project Section.

As defined in Section 3.15.1.1, recreation resources include public parks and open spaces; national monuments; school facilities available for public activities outside of school operating hours; greenbelts; wilderness areas; wildlife and waterfowl refuges; hiking, equestrian, and multipurpose trails; and public sports fields or facilities. For the purpose of this analysis, certain recreational facilities (including public school grounds and indoor recreational centers) must be publicly accessible and available for public use.

Data collection for parks, recreation, and open space consisted of a review of the plans and policies referenced in Section 3.15.2, interviews with local planning organizations, and the use of geographic information system (GIS) data. The cities, counties, state, and federal government agencies provided the boundaries for parks, recreation, and open-space properties within the RSA in GIS format or figures from the applicable planning documents were used to establish resource boundaries and their locations in relation to the Build Alternative footprint.

Analysis of Construction-Related Impacts

Construction impacts are determined based on whether or not construction activities would result in temporary or permanent acquisitions of park land; temporary increases in dust, noise, vibration, or visual effects; or a temporary barrier for access or use of the resource. As described in Section 3.15.4.1, these temporary and permanent construction effects are included in the Build Alternatives' RSAs. Table 3.15-2 presents an overview of the types of construction-related impacts evaluated in this analysis.

Analysis of Operations Impacts

Operations impacts are determined based on whether or not the physical improvements of the Build Alternatives or train operations would result in restricted access; increased use; or permanent increases in fugitive dust, noise, vibration, or visual effects that cause change in the character, capacity, or overall value of the resource. As described in Section 3.15.4.1, all land permanently acquired for implementation of the Build Alternatives, such as access roads and aboveground tunnel features, are included in the Build Alternatives' RSAs. Table 3.15-2 presents an overview of the types of operations impacts evaluated in this analysis.



Table 3.15-2 Construction and Operations Impacts of the HSR Palmdale to Burbank Project Section on Recreation Resources

Source of Impacts	Description of Impacts
Construction activities with potential for impacts on parks, recreation, and open space result from physical impacts on the landscape by project facilities such as the stations, parking structures/lots, support facilities, and columns supporting elevated structures.	 Pollutant emissions from construction equipment/dust Temporary construction noise and vibration nuisance Temporary changes to access and circulation Temporary reduction in parking capacity Temporary visibility of construction equipment and HSR facilities Temporary disruptions in established community and visitor use Temporary easements of park land for construction Temporary closure of facilities Temporary detours Permanent acquisitions of land from parks, recreation, or open space
Operations impacts from ongoing rail service and maintenance activities of the HSR system. These impacts would be considered permanent.	 Increased pollutant emissions from changes in traffic patterns Noise and vibration nuisance Changes in access and circulation Changes in the character of the resource Increased or decreased use of the resource Substantial physical deterioration of the resource's facilities and functions

HSR = high-speed rail

3.15.4.4 Method for Evaluating Impacts under NEPA

The Council on Environmental Quality NEPA regulations (40 C.F.R. Parts 1500–1508) provide the basis for evaluating project effects (Section 3.1.4.4). As described in Section 1508.27 of these regulations, the criteria of context and intensity are considered together when determining the severity of the change introduced by the project. "Context" is defined as the affected environment in which a proposed project occurs. "Intensity" refers to the severity of the effect, which is examined in terms of the type, quality, and sensitivity of the resource involved, location and extent of the effect, duration of the effect (short- or long-term), and other considerations of context. Beneficial effects are also considered. When no measurable effect exists, no impact is found to occur. For the purposes of NEPA compliance, the same methods used to identify and evaluate impacts under CEQA are applied here.

3.15.4.5 Method for Determining Significance under CEQA

The Authority is using the following thresholds to determine if a significant impact on parks, recreation, and open space resources would occur as a result of the project. A significant impact is one that would:

- Prevent the use of an established park, recreation, or open space
- Acquire an open space resource that would result in a diminished capacity to use that resource or a substantially reduced value of that resource
- Create a physical barrier (or a perceived barrier) to the access to or established use of a park, recreation, or open space area
- Result in acquisition of a recreation resource that would result in a diminished capacity to use the resource for specific and defined recreational activities



- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated
- Result in the physical alteration of the existing facilities or a need to provide new parks or
 other recreational facilities—the construction of which would cause significant environmental
 impacts—to maintain acceptable service ratios or other performance objectives

If a threshold is exceeded, the impact is considered significant and the impact is specifically identified. For significant impacts, feasible mitigation measures are identified to avoid, minimize, or reduce the severity of the impacts. If mitigation does not reduce an impact below the threshold, the impact remains significant and unavoidable after mitigation.

3.15.5 Affected Environment

The RSA for parks, recreation, and open space resources lies entirely within Los Angeles County, beginning in the city of Palmdale, curving westward along the western edge of ANF, including the SGMNM, and spanning south to the city of Burbank. The RSA encompasses parks, recreation, and open space resources within unincorporated Los Angeles County and the cities of Palmdale, and Burbank. Figure 3.15-1 through Figure 3.15-4 illustrate the RSA for parks and recreation resources. Section 3.15.5.1 and Section 3.15.5.2 describe the following resources within the subsection RSAs: park, recreation, and

Resources Specific to the Build Alternatives' RSAs

Because the Build Alternatives would have different footprints within the Central Subsection, the RSAs for this subsection overlap in some areas and deviate in others. Table 3.15-3 is organized first by resource name (in order of north to south), with a "Build Alternative RSA" column to indicate the applicable Build Alternative RSA.

open space resources; school district play areas and recreation facilities; trails and other recreation resources; and resources excluded from further analysis.

In addition to the existing parks, recreation, and open space resources, there are several proposed park and trail extensions within the RSA that are in the planning and/or design phase. Although not constructed at the time of this analysis, those proposed parks and recreation resources within the RSA likely to be constructed and operational by the time the Build Alternatives are implemented are considered in this analysis. Aside from an approximately 500-foot portion of the existing Palmdale Hills trail near SR 14, all of the "proposed extension" resources are not yet built within the RSA. See Section 3.15.4.3 for the methodology of data collection for both existing and proposed resources.

Established local policies concerning the content of parks, recreation, and open space-related impacts are identified in Table 3.15-1.

3.15.5.1 Central Subsection

This section describes the park, recreation, open space, school district play areas, and trail resources in the Central Subsection that are both common to all six Build Alternatives and specific to individual Build Alternatives. Each of the resources discussed below is listed in Table 3.15-3 at the end of this section.

Common to All Six Build Alternatives

This section discusses parks and recreation resources in the Central Subsection RSA that are common to all six Build Alternatives (Figure 3.15-1 through Figure 3.15-4). Parks and recreation resources that are exclusive to one or more of the Build Alternatives are discussed further in the respective Refined SR14 Build Alternative, SR14A Build Alternative, the E1 Build Alternative, the E1 Build Alternative, and the E2A Build Alternative sections.

Parks, Recreation, and Open Space Resources

Angeles National Forest, including San Gabriel Mountains National Monument

The ANF is an approximately 700,000-acre national forest containing recreation resources. The SGMNM is an approximately 342,000-acre national monument, a portion of which is located



within the ANF. The ANF, including the SGMNM, is the only parks and recreation resource in the Central Subsection common to all six Build Alternatives. The ANF offers natural environments and developed recreation areas including campgrounds and picnic facilities. Additionally, recreational users can swim, fish, hike, and ski in the ANF. The ANF covers public lands in the Transverse Range, including portions of the San Gabriel and Sierra Pelona Mountains. According to the ANF Land and Resources Management Plan, an estimated 5 million visitors use the forest annually for recreation (ANF 2014).

The SGMNM was established by President Barack Obama in October 2014. The Presidential Proclamation, authorized by the Antiquities Act of 1906, declares that the SGMNM's historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest owned or controlled by the federal government are to be a national monument (The White House 2014).

School District Play Areas and Recreation Facilities

There are no school district play areas or recreational facilities within the RSA common to all six Build Alternatives within the Central Subsection.

Trails and Other Resources

Palmdale Hills Trail

The Palmdale Hills Trail is an approximately 1-mile route south of Lake Palmdale and is owned and maintained by Los Angeles Department of Parks and Recreation. The Palmdale Hills Trail is used for recreational hiking. Planned trail extensions will provide additional hiking opportunities and connections to the local trail system.

Littlerock Trail (Proposed Extension)

The Littlerock Trail is an approximately 1-mile hiking trail that runs south along the Sierra Highway until East Soledad Road, where it turns east and enters the ANF, including the SGMNM (Figure 3.15-1). The trail is proposed to be extended along Angeles Forest Highway, near the E1 Build Alternative alignment.

Vasquez Loop Trail

The Vasquez Loop Trail is an approximately 3-mile route that runs in a north-south direction along Red Rover Mine Road in Acton and is owned and maintained by the Los Angeles County Department of Parks and Recreation. The Vasquez Loop Trail is used for recreational hiking. Planned trail extensions of 3 miles will provide additional hiking opportunities and connections to the local trail system and are within the RSA.

Pacific Crest Trail

The PCT is a series of ridgeline trails that extend approximately 2,659 miles along the Sierra Nevada and Cascade mountain ranges, from Mexico through California (including Los Angeles and Kern Counties), Oregon, and Washington to Canada. It is part of the National Scenic Trail System. Approximately 3 miles of the trail intersect the RSA (a 1,000-foot buffer around the Build Alternative footprint) at different points in the six Build Alternatives. The PCT is open to use by hikers and equestrians, but not bicyclists or motorized vehicles.

Rim of the Valley Trail (Proposed Extension)

The National Park Service is proposing a trail extension that would encircle the area known as the Rim of the Valley Corridor, an area that circles around the San Fernando Valley, through the ANF, Simi Valley, and Santa Monica Mountains (US Department of the Interior 2015). The existing Rim of the Valley Trail is 80 miles long. The proposed extension would incorporate an additional 120 miles of trail, including a segment that through the RSA.



Refined SR14 Build Alternative

This section discusses those parks and recreation resources in the Central Subsection that are within the RSA for the Refined SR14 Build Alternative (Figure 3.15-2 and Figure 3.15-3). Table 3.15-3 provides more information about these resources.

Parks, Recreation, and Open Space Resources

Vasquez Rocks Natural Area Park

Vasquez Rocks Natural Area Park covers an approximate 932-acre area south of Agua Dulce between the cities of Palmdale and Santa Clarita (Figure 3.15-2). Vasquez Rocks Natural Area Park is renowned for the unique geological sandstone rock formations in the high desert near Agua Dulce Springs. Additionally, the park features a history trail tour about the Tataviam Indians and Spanish settlers. Other activities include campfire nature talks, equestrian programs, a junior ranger program, seasonal special events, hiking, and horseback riding.

Veterans Memorial Community Regional Park

Veterans Memorial Park is a 97-acre park in Sylmar (Figure 3.15-3). Amenities at this park include grassy picnic areas, a large pavilion, camping areas, and a community recreation building.

El Cariso Golf Course/Regional Park

El Cariso Park is an 80-acre park in Sylmar (Figure 3.15-3). Amenities at this park include a public golf course, picnic areas, children's play structure, fitness zone, tennis courts, and a community swimming pool. The park also includes a 15,000-square-foot community center with an indoor gymnasium, community rooms, restrooms, and staff offices.

Pacoima Wash Urban Greenway (Proposed)

The Los Angeles County Department of Parks and Recreation plans to create a 68-acre park, the proposed Pacoima Wash Urban Greenway, which would extend from the Pacoima Wash through the San Fernando Valley (Figure 3.15-3) (Los Angeles County Department of Public Health 2011). The greenway would primarily function as an urban linkage, as well a recreational corridor between San Fernando Valley communities. The proposed greenway would be located near the Pacoima spreading grounds and the Interstate 210/State Route (SR) 118 interchange.

Hubert H. Humphrey Memorial Recreation Center and Pool

The Hubert H. Humphrey (HHH) Memorial Recreation Center and Pool is a 10-acre recreation center in Pacoima (Figure 3.15-3). Amenities at this recreation center include a community pool, a baseball diamond, outdoor basketball courts, children's play structure, handball courts, picnic tables, soccer field, kitchen, indoor performance stage, and teen center.

Roger W. Jessup Park

The Roger W. Jessup Park is a 9-acre park in Pacoima (Figure 3.15-4). Amenities at this park include children's play structure, community room, picnic tables, restroom(s), and a community garden.

Sun Valley Recreation Center and Pool

The Sun Valley Recreation Center is a 17-acre community center in Sun Valley (Figure 3.15-4). Amenities at this community center include a community pool, baseball diamond, outdoor basketball courts, children's play structure, football field, picnic tables, soccer field, tennis courts, jogging path, kitchen, and a multipurpose room.

School District Play Areas and Recreation Facilities

The following five schools provide a range of play areas and recreational facilities, including basketball courts and athletic fields. Access to the play areas and recreational facilities at these schools is available to the public with a facilities use permit, which are authorized by the schools'



administration (Los Angeles Unified School District [LAUSD] 2016, 2017; Agua Dulce-Acton Unified School District 2017).

- Vasquez High School (Figure 3.15-1)
- High Desert Middle School (Figure 3.15-2)
- Hillery T. Broadous Elementary School (Figure 3.15-3)
- Charles Maclay Middle School (Figure 3.15-4)
- Roscoe Elementary School (Figure 3.15-4)

Vasquez High School and High Desert Middle School are in the Agua Dulce-Acton Unified School District. Hillery T. Broadous Elementary School, Charles Maclay Middle School, and Roscoe Elementary School are part of the LAUSD.

Trails and Other Resources

Darrell Readmond Trail (Proposed Extension)

Darrell Readmond Trail is a 0.22-mile trail entirely within Acton County Park in Acton (Figure 3.15-2). The Los Angeles County Department of Parks and Recreation is currently proposing extensions of this trail to connect with several other regional trails in this area. The proposed extensions would travel north from the park to the SR 14 freeway along Escondido Canyon Road.

Santa Clara River Trail (Proposed Extension)

The Santa Clara River Trail follows its namesake waterway in Santa Clarita and unincorporated Los Angeles County, crossing under Sierra Highway and SR 14 freeway (Figure 3.15-2). The paved trail connects several of Santa Clarita's neighborhoods, including Canyon Country and Rancho Santa Clarita. Los Angeles County Department of Parks and Recreation plans to extend the trail further east, continuing along the Santa Clara River (Los Angeles County 2018).

SR14A Build Alternative

Parks, Recreation, and Open Space Resources

As described in Chapter 2, Alternatives, the SR14A Build Alternative diverges from the Refined SR14 Build Alternative alignment south of Avenue R in Palmdale and curves westward before running parallel to the Refined SR14 Build Alternative, about 0.7 mile south. The SR14A Build Alternative converges with the Refined SR14 Build Alternative at the Santa Clara River, near the Vulcan Mine Site. Thus, the Refined SR14 and SR14A Build Alternatives share the same alignment for the southern half of the Palmdale to Burbank Project Section. This is shown in Figure 3.15-1 and Figure 3.15-2. The following seven resources previously described within the RSA for the Refined SR14 Build Alternative are also within the RSA for the SR14A Build Alternative (see Table 3.15-3):

- Vasquez Rocks Natural Area Park (Figure 3.15-2)
- Veterans Memorial Community Regional Park (Figure 3.15-3)
- El Cariso Golf Course/Regional Park (Figure 3.15-3)
- Pacoima Wash Urban Greenway (Proposed) (Figure 3.15-3)
- HHH Memorial Recreation Center and Pool (Figure 3.15-3)
- Roger W. Jessup Park (Figure 3.15-4)
- Sun Valley Recreation Center and Pool (Figure 3.15-4)

Tejon Equestrian Park

Tejon Equestrian Park is an approximately 19-acre equestrian park east of Sierra Highway and south of Barrel Springs Road (Figure 3.15-1). This resource contains equestrian-related facilities, such as a horse show arena. The SR14A Build Alternative would cross at grade approximately 310 feet from the western and southern limits of the park.

School District Play Areas and Recreation Facilities

The following five LAUSD resources previously described within the RSA for the Refined SR14 Build Alternative are also within the RSA for the SR14A Build Alternative.



- Vasquez High School (Figure 3.15-1)
- High Desert Middle School (Figure 3.15-2)
- Hillery T. Broadous Elementary School (Figure 3.15-3)
- Charles Maclay Middle School (Figure 3.15-4)
- Roscoe Elementary School (Figure 3.15-4)

There are no additional school district play areas within the RSA for the SR14A Build Alternative that were not previously identified.

Trails and Other Resources

The following two trails previously described within the RSA for the Refined SR14 Build Alternative are also within the RSA for the SR14A Build Alternative.

- Darrell Readmond Trail (Proposed Extension) (Figure 3.15-2)
- Santa Clara River Trail (Proposed Extension) (Figure 3.15-2)

There are no additional trails within the RSA for the SR14A Build Alternative that were not previously identified.

E1 Build Alternative

This section discusses those recreation resources in the Central Subsection that are within the RSA for the E1 Build Alternative (Figure 3.15-1 through Figure 3.15-4). Table 3.15-3 provides more information about these resources. Recreation resources that are common to all six Build Alternatives are discussed in the Common to all Six Build Alternatives section above.

Parks, Recreation, and Open Space Resources

The following five resources previously described within the RSA for the Refined SR14 Build Alternative are also within the RSA for the E1 Build Alternative.

- Veterans Memorial Community Regional Park (Figure 3.15-3)
- El Cariso Golf Course/Regional Park (Figure 3.15-3)
- HHH Memorial Recreation Center and Pool (Figure 3.15-3)
- Roger W. Jessup Park (Figure 3.15-4)
- Sun Valley Recreation Center and Pool (Figure 3.15-4)

There are no additional parks within the RSA for the E1 Build Alternative that were not previously identified.

School District Play Areas and Recreation Facilities

The following three LAUSD resources previously described within the RSA for the Refined SR14 Build Alternative are also within the RSA for the E1 Build Alternative.

- Hillery T. Broadous Elementary School (Figure 3.15-3)
- Charles Maclay Middle School (Figure 3.15-4)
- Roscoe Elementary School (Figure 3.15-4)

There are no additional school district play areas within the RSA for the E1 Build Alternative that were not previously identified.

Trails and Other Resources

Acton Community Trail (Proposed Extension)

The Acton Community Trail is owned and maintained by the Los Angeles County Department of Parks and Recreation (Figure 3.15-1). The trail follows the Metrolink Rail Corridor through Acton, looping via Cedarcroft Road and County Ways Road, and is proposed to be extended along Soledad Canyon Road, within the RSA for the E1 Build Alternative.



E1A Build Alternative

Parks, Recreation, and Open Space Resources

As described in Chapter 2, Alternatives, the E1A Build Alternative diverges from the E1 Build Alternative alignment south of Avenue R in Palmdale on a more easterly route. The E1A Build Alternative converges with the E1 Build Alternative just south of Vincent View Road near the Vincent Grade—Acton Metrolink Station. Thus, the E1 and E1A Build Alternatives share the same alignment for the majority of the Palmdale to Burbank Project Section. This is shown in Figure 3.15-1.

The following six resources previously described within the RSA for the Refined SR14 and SR14A Build are also within the RSA for the E1A Build Alternative (Table 3.15-3).

- Tejon Equestrian Park (Figure 3.15-1)
- Veterans Memorial Community Regional Park (Figure 3.15-3)
- El Cariso Golf Course/Regional Park (Figure 3.15-3)
- HHH Memorial Recreation Center and Pool (Figure 3.15-3)
- Roger W. Jessup Park (Figure 3.15-4)
- Sun Valley Recreation Center and Pool (Figure 3.15-4)

There are no additional parks within the RSA for the E1A Build Alternative that were not previously identified.

School District Play Areas and Recreation Facilities

The following three LAUSD resources previously described within the RSA for the Refined SR14 Build Alternative are also within the RSA for the E1A Build Alternative

- Hillery T. Broadous Elementary School (Figure 3.15-3)
- Charles Maclay Middle School (Figure 3.15-4)
- Roscoe Elementary School (Figure 3.15-4)

There are no additional school district play areas within the RSA for the E1A Build Alternative that were not previously identified.

Trails and Other Resources

The following two trails previously described within the RSA for the E1 Build Alternative are also within the RSA for the E1A Build Alternative.

- Acton Community Trail (Proposed Extension) (Figure 3.15-1)
- Littlerock Trail (Proposed Extension) (Figure 3.15-1)

There are no additional trails within the RSA for the E1A Build Alternative that were not previously identified.

E2 Build Alternative

This section discusses those recreation resources in the Central Subsection that are within the RSA for the E2 Build Alternative (Figure 3.15-1 through Figure 3.15-4). Table 3.15-3 provides more information about these resources. Recreation resources that are common to all six Build Alternatives are discussed in the Common to all Six Build Alternatives section above.

Parks, Recreation, and Open Space Resources

Acton Wash Wildlife Sanctuary

The Acton Wash Wildlife Sanctuary is in Acton, in the Sierra Pelona Mountains (Figure 3.15-1). The 75-acre sanctuary offers hiking trails and horseback riding.

Hansen Dam Open Space Area

The Hansen Dam Open Space Area is approximately 25 miles north of downtown Los Angeles in the Lake View terrace neighborhood (Figure 3.15-4). This approximately 813-acre recreation area



includes day-use facilities such as a golf course and riding stables; an aquatic center with a lake available for swimming, fishing, and boating; and picnic areas. Little Tujunga Creek and the Tujunga Wash are adjacent to the recreation area.

Tujunga Ponds Wildlife Sanctuary

The Tujunga Ponds Wildlife Sanctuary is an approximately 13-acre wildlife area at the grade separation of Interstate 210 and Wentworth Street in Tujunga (Figure 3.15-4). The sanctuary is outside of the RSA; however, it is included in this analysis because it may be sensitive to noise and vibration. It is 4,200 feet away from the nearest Build Alternative improvements, approximately 3,200 feet from the RSA. The sanctuary was created as mitigation for construction of Interstate 210 in 1978, and is managed as a mitigation area. The sanctuary is generally fenced and closed to the public to maintain the area as a protected wildlife habitat. However, several designated trails are maintained for public access, and can be used to view and photograph the sanctuary. The Tujunga Ponds Wildlife Sanctuary is within the Tujunga Valley/Hansen Dam area, which is a Significant Ecological Area according to the Los Angeles County Department of Regional Planning (Los Angeles County Department of Regional Planning 2012). This classification is due to the presence of special-status plant and animal species that exist in limited numbers in Los Angeles County, as well as freshwater marshes, migratory bird habitat, and healthy riparian woodlands.

Stonehurst Park and Recreation Center

The Stonehurst Park and Recreation Center is in Sun Valley and features public amenities that include an auditorium, barbecue pits, a baseball diamond, outdoor basketball courts, children's play structure, community room, football field, indoor gym, soccer field, volleyball courts, an equestrian center, and walking paths (Figure 3.15-4).

School District Play Areas and Recreation Facilities

Stonehurst Avenue Elementary School

Stonehurst Avenue Elementary School, an LAUSD school, is in Sun Valley. The school's recreational facilities and play areas are open for public recreational use during nonschool hours with a permit from the school's administration (Figure 3.15-4) (LAUSD 2016, 2017).

Glenwood Elementary School

Glenwood Elementary School, an LAUSD school, is in Sun Valley. The school's recreational facilities and play areas are open for public recreational use during nonschool hours with a permit from the school's administration (Figure 3.15-4) (LAUSD 2016).

Trails and Other Resources

The following two trails previously described within the RSA for the E1 Build Alternative are also within the RSA for the E2 Build Alternative.

- Acton Community Trail (Proposed Extension) (Figure 3.15-1)
- Littlerock Trail (Proposed Extension) (Figure 3.15-1)

There are no additional trails within the RSA for the E2 Build Alternative that were not previously identified.

E2A Build Alternative

Parks, Recreation, and Open Space Resources

As described in Chapter 2, Alternatives, the E2A Build Alternative diverges from the E2 Build Alternative alignment south of Avenue R in Palmdale on a more eastern route. The E2A Build Alternative converges with the E2 Build Alternative just south of Vincent View Road near the Vincent Grade—Acton Metrolink Station. Thus, the E2 and E2A Build Alternatives share the same alignment for the majority of the Palmdale to Burbank Project Section. This is shown in Figure 3.15-1. The following five resources previously described within the RSA for the Refined SR14,



SR14A, and E2 Build Alternatives are also within the RSA for the E2A Build Alternative (Table 3.15-3).

- Tejon Equestrian Park (Figure 3.15-1)
- Acton Wash Wildlife Sanctuary (Figure 3.15-2)
- Hansen Dam Open Space Area (Figure 3.15-4)
- Tujunga Ponds Wildlife Sanctuary (Figure 3.15-4)
- Stonehurst Park and Recreation Center (Figure 3.15-4)

There are no additional parks within the RSA for the E2A Build Alternative that were not previously identified.

School District Play Areas and Recreation Facilities

The following two resources previously described within the RSA for the E2 Build Alternative are also within the RSA for the E2A Build Alternative.

- Stonehurst Avenue Elementary School (Figure 3.15-4)
- Glenwood Elementary School (Figure 3.15-4)

There are no additional school district play areas within the RSA for the E2A Build Alternative that were not previously identified.

Trails and Other Resources

The following two trails previously described within the RSA for the E1 Build Alternative are also within the RSA for the E2A Build Alternative.

- Acton Community Trail (Proposed Extension) (Figure 3.15-1)
- Littlerock Trail (Proposed Extension) (Figure 3.15-1)

There are no additional trails within the RSA for the E2A Build Alternative that were not previously identified.



Table 3.15-3 Recreation Resources within the Central Subsection Resource Study Area

Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Tejon Equestrian Park (1)	City of Palmdale	SR14A, E1A, and E2A	Equestrian Park	Pedestrian and equestrian use	East of Sierra Highway and south of Barrel Springs Road	19 acres	Nearest HSR Improvements: 100 feet. The SR14A, E1A, and E2A Build Alternatives would cross at grade near the southern and western limits of Tejon Equestrian Park. Distance from Centerline: 310 feet
Palmdale Hills Trail (Proposed Extension) (2)	Los Angeles Department of Parks and Recreation	All six Build Alternatives	Proposed Trail	Hiking	The proposed trail extension runs parallel to Barrel Springs Road and the California Aqueduct, south of Palmdale	1 mile	Nearest HSR Improvements/ Distance from Centerline: 0 feet. The Refined SR14 Build Alternative would tunnel under a proposed extension of this trail; The SR14A, E1, and E2 Build Alternatives would cross the proposed trail extension at grade. The E1A and E2A Build Alternatives would cross the trail in an elevated structure.
Acton Community Trail (Proposed Extension) (5)	Los Angeles County Department of Parks and Recreation	E1, E1A, E2, and E2A	Proposed Trail	Hiking	The proposed trail extension follows the existing Metrolink Rail Corridor through Acton, and loops via Cedarcroft Road and County Ways Road	N/A	Nearest HSR Improvements/ Distance from Centerline: 0 feet. The E1, E1A, E2, and E2A Build Alternative alignments would run parallel (at grade and retained cut) and would cross the proposed trail extension; the trail extension would overlap with a traction power facility.



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Littlerock Trail (Proposed Extension) (4)	Los Angeles County Department of Parks and Recreation	All six Build Alternatives	Proposed Trail	Hiking, camping	The proposed trail extension runs south along Sierra Highway until East Soledad Road, then veers east into ANF including SGMNM	1 mile	Nearest HSR Improvements/ Distance from Centerline: 0 feet. The E1 and E2 Build Alternative alignments would cross the proposed trail extension at grade. E1A and E2A would cross under the trail in a bored tunnel. Aboveground traction power facilities needed for the Refined SR14 and SR14A Build Alternatives would cross the trail.
Vasquez Loop Trail (Proposed Extension) (3)	Los Angeles County Department of Parks and Recreation	All six Build Alternatives	Proposed Trail	Hiking	The proposed trail extension runs south along Red Rover Mine Road in Acton	3 miles	Nearest HSR Improvements/ Distance from Centerline: 0 feet. The Refined SR14 Build Alternative would tunnel under the proposed trail and would cross on a viaduct. The SR14A, E1A, and E2A Build Alternatives would cross under the trail in a bored tunnel. The E1 and E2 Build Alternatives would cross trail with cut-and- cover tunnel and then immediately adjacent would be a retained cut. Aboveground traction power facilities are also proposed in the vicinity and would cross the trail.



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Darrell Readmond Trail (Proposed Extension) (8)	Los Angeles County Department of Parks and Recreation	Refined SR14 and SR14A	Proposed Trail	Hiking	The proposed trail extension runs along Escondido Canyon Road in the vicinity of the Refined SR14 and SR14A Build Alternatives	0.22-miles	Nearest HSR Improvements: 0 feet. The Refined SR14 Build Alternative would cross over the proposed trail on an elevated viaduct and the SR14A Build Alternative would cross under the proposed trail in a bored tunnel. Distance from Centerline: 0 feet
Playgrounds at Vasquez High School (6)	Acton-Agua Dulce Unified School District	Refined SR14 and SR14A	School	Ball courts, track/athletic fields, swimming pool	33630 Red Rover Mine Road, Acton	N/A	Nearest HSR Improvements: 700 feet. Road improvements north of the resource and utility easements within Escondido Canyon Road. Distance from Centerline: 230 feet (underground bored tunnel; no surface effects).
Playgrounds at High Desert Middle School (9)	Acton-Agua Dulce Unified School District	Refined SR14 and SR14A	School	Athletic fields	3620 Antelope Woods Road, Acton	14 acres	Nearest HSR Improvements: 630 feet, Road improvements west. Distance from Centerline: 0 feet.
Acton Wash Wildlife Sanctuary (10)	Los Angeles County Department of Parks and Recreation	E1, E1A, E2, and E2A	Wildlife Refuge	Passive recreation through observing wildlife	Soledad Canyon Road and Gillespie Avenue, Acton	75 acres	Nearest HSR Improvements: 10 feet. Utility easement within Crown Valley Road. Distance from Centerline: 1.5 miles (underground bored tunnel; no surface effects).



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Vasquez Rocks Natural Area Park (12)	Los Angeles County Department of Parks and Recreation	Refined SR14 and SR14A	Natural Park	Rock formations, Tataviam Indian sites, hiking	10700 West Escondido Canyon Road, Agua Dulce	932 acres	Nearest HSR Improvements: 900 feet. The Refined SR14 and SR14A Build Alternative alignments are approximately 900 feet from the park on the opposite side of State Route 14.
							Distance from Centerline: 1,000 feet.
Pacific Crest Trail (11)	Various public and private lands	All six Build Alternatives	National Scenic Trail	Hiking, equestrian activities	PCT runs from Manning Park on the U.S Canada border to the U.SMexico border just south of Campo	The PCT's entire length is 2,659 miles. Approximately 3 miles of the trail pass through the RSA.	Nearest HSR Improvements/ Distance from Centerline: 0 feet. The Refined SR14 Build Alternative alignment would pass over the PCT in two locations on a viaduct, affecting about 0.7 mile of the trail. The SR14A, E1, E1A, E2, and E2A Build Alternative alignments would tunnel underneath the PCT.
Santa Clara River Trail (Proposed Extension) (15)	Various public and private lands, including Los Angeles County land	Refined SR14 and SR14A	Proposed Trail	Hiking	The proposed trail extension generally follows the Santa Clara River, near the Antelope Valley Freeway southeast of Forest Park.	N/A	Nearest HSR Improvements/ Distance from Centerline: 0 feet.



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Angeles National Forest/San Gabriel Mountains National Monument (7)	United States Department of Agriculture	All six Build Alternatives	National Monument	Hiking, trails, camping	700,000-acre monument that encompasses the central and northern regions of the San Gabriel Mountain range within the Angeles National Forest, east of the Antelope Valley Freeway	700,000 acres	Nearest HSR Improvements/ Distance from Centerline: 0 feet. All six Build Alternatives would tunnel underneath the ANF including SGMNM, and include some features above ground, such as tunnel portals, adits and utilities.
Rim of the Valley Trail (Proposed Extension) (16)	United States Department of the Interior, National Park Service	All six Build Alternatives	Proposed Trail Extension	Hiking, nature study, equestrian activities	The proposed trail extension would encircle the area known as the Rim of the Valley Corridor, an area that circles around the San Fernando Valley, through ANF, Simi Valley, and Santa Monica Mountains	The existing trail is 80 miles in length. The proposed extension would incorporate an additional 120 miles of trail.	Nearest HSR Improvements/ Distance from Centerline: 0 feet. The Refined SR14, SR14A, E1, and E1A Build Alternatives would intersect the proposed trail extension south of the Pacoima Reservoir in the ANF. The E1 and E1A Build Alternatives would intersect the proposed trail extension near Little Tujunga Canyon Road in the ANF.
Veterans Memorial Community Regional Park (17)	Los Angeles County Department of Parks and Recreation	Refined SR14, SR14A, E1, and E1A	Park	Camping, picnic areas, restrooms, rental facilities	13000 Sayre Street, Sylmar	97 acres	Nearest HSR Improvements: 600 feet. Utility easement to the south along Gavina Avenue and Hubbard Street. Distance from Centerline: 3,000 feet (underground bored tunnel; no surface effects).



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
El Cariso Golf Course/ Regional Park (18)	Los Angeles County Department of Parks and Recreation	Refined SR14, SR14A, E1, and E1A	Golf Course/ Park	Golf, club facilities	13100 Eldridge Avenue, Sylmar	80 acres	Nearest HSR Improvements: 600 feet. Utility easement to the northwest along Hubbard Street. Distance from Centerline:
							1,600 feet (underground bored tunnel / no surface effects).
Pacoima Wash Proposed Urban Greenway (19)	Los Angeles County Department of Public Works	Refined SR14 and SR14A	Wash	Hiking trails, sightseeing	Approximately 3 miles northeast of Sylmar	68 acres	Nearest HSR Improvements: 2,500 feet. Distance from Centerline: 930 feet (underground bored tunnel; no surface effects).
Playgrounds at Hillery T. Broadous Elementary School (20)	Los Angeles Unified School District	Refined SR14, SR14A, E1, and E1A	School	Ball courts, track field	12561 Fillmore Street, Pacoima	N/A	Nearest HSR Improvements/ Distance from Centerline: 0 feet (underground bored tunnel; no surface effects).
HHH Memorial Recreation Center and Pool (21)	Los Angeles County Department of Parks and Recreation	Refined SR14, SR14A, E1, and E1A	Park	Gym and sports facilities, arts and crafts, after- school programs, swimming	12560 Fillmore Street, Pacoima	10 acres	Nearest HSR Improvements/ Distance from Centerline: 0 feet (underground bored tunnel; no surface effects).
Playgrounds at Charles Maclay Middle School (22)	Los Angeles Unified School District	Refined SR14, SR14A, E1, and E1A	School	Ball courts, athletic fields	12540 Pierce Street, Pacoima	14 acres	Nearest HSR Improvements/ Distance from Centerline: 0 feet (underground bored tunnel; no surface effects).
Hansen Dam Open Space Area (23)	Los Angeles County Department of Parks and Recreation	E2 and E2A	Recreation area	Golf, horseback riding, hiking	The open space area lies approximately 25 miles north of downtown Los Angeles in Lake View terrace.	813 acres	Nearest HSR Improvements/ Distance from Centerline: 0 feet.



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Tujunga Ponds Wildlife Sanctuary ³ (24)	Los Angeles County Department of Parks and Recreation	E2 and E2A	Park	Hiking, nature study and passive recreation	Interstate 210 and Wentworth Street, Tujunga	13 acres	Nearest HSR Improvements/ Distance from Centerline: 4,200 feet.
Roger W. Jessup Park (25)	Los Angeles County Department of Parks and Recreation	Refined SR14, SR14A, E1, and E1A	Park	Play area, community room, picnic tables, community garden	12408 Osborne Street, Pacoima	9 acres	Nearest HSR Improvements/ Distance from Centerline: 0 feet (underground bored tunnel; no surface effects).
Stonehurst Park and Recreation Center (27)	Los Angeles County Department of Parks and Recreation	E2 and E2A	Park	Athletic fields, activity center	9901 Dronfield Avenue, Sun Valley	45 acres	Nearest HSR Improvements: 50 feet. Distance from Centerline: 900 feet (underground bored tunnel; no surface effects).
Playgrounds at Stonehurst Avenue Elementary School (27)	Los Angeles Unified School District	E2 and E2A	School	Ball courts, athletic fields	9851 Stonehurst Avenue, Sun Valley	N/A	Nearest HSR Improvements/ Distance from Centerline: 0 feet (underground bored tunnel; no surface effects).
Sun Valley Recreation Center and Pool (28)	Los Angeles County Department of Parks and Recreation	Refined SR14, SR14A, E1, and E1A	Park	Athletic fields, swimming pool, play area, tennis courts, and community room	8123 Vineland Avenue, Sun Valley	17 acres	Nearest HSR Improvements/ Distance from Centerline: 280 feet.



Resource Name and Map ID	Owner	Build Alternative RSA	Resource Type	Amenities	Location	Approximate Size ¹	Distance from Build Alternative ²
Playgrounds at Roscoe Elementary School (29)	Los Angeles Unified School District	Refined SR14, SR14A, E1, and E1A	School	Ball courts	10765 Strathern Street, Sun Valley	N/A	Nearest HSR Improvements: 20 feet. Distance from Centerline: 90 feet.
Playgrounds at Glenwood Elementary School (30)	Los Angeles Unified School District	All six Build Alternatives	School	Ball courts, athletic fields	8001 Ledge Avenue, Sun Valley	7 acres	Nearest HSR Improvements/ Distance from Centerline: 0 feet (underground bored tunnel; no surface effects)

Sources: Los Angeles County Department of Parks and Recreation, 2016; Los Angeles Unified School District, 2017; Padres, 2017; Simmons, 2017; United States Department of the Interior, 2015.

ANF = Angeles National Forest

HHH = Hubert H. Humphrey

HSR = high-speed rail

N/A = information not available

PCT = Pacific Crest Trail

RSA = resource study area

SGMNM = San Gabriel Mountains National Monument

¹ Sizes of resources rounded up to the nearest whole number.

² Distances from the Build Alternative alignment centerlines that are measured as 0 feet are intersected by the alignment.

³ Tujunga Ponds Wildlife Sanctuary is included in this analysis (outside of the 1,000-foot RSA) because it is considered exceptionally sensitive to noise or visual impacts.



Resources Excluded from Further Analysis

There are resources within the Central Subsection that are excluded from further analysis. Lake Palmdale and Una Lake both fall within the RSA for all six Build Alternatives within the Central Subsection. Lake Palmdale is owned by the Palmdale Water District (a public agency) and is near Palmdale's southern edge. The lake is fed by the California Aqueduct and is regularly stocked with fish. Boat and fishing docks line its shores. Although a public agency owns the lake, its use for recreation is restricted and reserved for members of the Palmdale Fin and Feather Club; therefore, this resource is not publicly accessible. Una Lake is also privately owned, enclosed by fencing, and is not available for public use. Both of these resources are excluded from further discussion because they are not accessible to the general public.

Several U.S. Department of the Interior, Bureau of Land Management holdings are within the RSAs for all six Build Alternatives within the Central Subsection. Although access to these parcels is not restricted, there are no recreational amenities on the properties, nor are there access routes to or from the resources from public rights-of-way. Given this, these Bureau of Land Management holdings are not considered open space or recreation resources.

Within the Refined SR14 and SR14A Build Alternatives' RSA, Agua Dulce Canyon Parkland is a triangular open space area on the south side of SR 14, adjacent to Vasquez Rocks Natural Area Park. Rio Dulce Ranch/Open Space lies south of Agua Dulce. There are no recorded recreational amenities within these two open space areas, and no dedicated public access to the areas. Given this, these resources are not considered recreation resources and are excluded from further analysis.

3.15.5.2 Burbank Subsection

There are no parks, recreation, open space resources, school district play areas, or trails and other resources in the Burbank Subsection (Figure 3.15-4).

3.15.6 Environmental Consequences

3.15.6.1 Overview

This section evaluates how the Palmdale to Burbank Project Section would affect parks and recreation, including school play areas and trails, and open space resources. The impacts evaluated for each of the Build Alternatives are described and organized as follows.

Construction Impacts

- Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.
- Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.

Operations Impacts

- Impact PK#3: Changes to Park, Recreation, and Open Space Resource Character.
- Impact PK#4: Increased or Decreased Use of Parks, Recreation, and Open Space Resources.

3.15.6.2 No Project Alternative

The No Project Alternative assumes that the Palmdale to Burbank Project Section would not be built. In assessing future conditions, it was assumed that currently known, programmed, and funded improvements to the intercity transportation system (highway, rail, and transit) and reasonably foreseeable local development projects (with funding sources already identified) would be developed as planned by 2040. Land use restrictions within the ANF, including the SGMNM, would continue to regulate potential development proposed within the ANF under the No Project Alternative. The No Project Alternative is based on a review of city and county general plans, regional transportation plans for all modes of travel, and agency-provided lists of pending and approved projects within Los Angeles County.



The No Project Alternative would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. This is because the No Project Alternative would not directly increase population beyond regional population projections accounted for in regional and local land use plans. Those plans and related county and city ordinances contain provisions for funding, acquiring, and maintaining public parks and recreational facilities adequate to meet the needs of future planned population growth. The No Project Alternative would not conflict with existing or planned parks, recreational facilities, or open space. There would be no impacts resulting in the substantial physical deterioration of recreational facilities due to implementation of the No Project Alternative.

Future developments planned under the No Project Alternative would require individual environmental review. This review would include an analysis of future development impacts on parks, recreation, and open space resources, and the environmental impacts 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 would cause significant environmental impacts in order to maintain acceptable service ratios or other performance objectives. Impacts resulting from conflicts with existing and planned parks, recreational, or open space resources, or the physical alteration of these recreation resources due to the No Project Alternative were determined to have no impact.

3.15.6.3 Build Alternatives

The following analysis presents the construction and operations impacts of all six Build Alternatives on parks, recreation, and open space resources. A brief statement is provided for each general type of impact, followed by detailed descriptions of the alignment-specific acquisitions, temporary construction impacts, and permanent operations impacts, by park resource. Table 3.15-4 summarizes the construction and operations impacts on parks, recreation, and open space resources.

Figure 3.15-5 through Figure 3.15-19 illustrate the locations of parks, recreational facilities, and open spaces within the RSA at a scale that clearly shows the location and areal extent of the Build Alternative impacts on these resources.

As described in Section 3.15.4.3, this analysis considers construction and operations impacts, divided by types of impacts or activities with the potential to result in physical impacts or other disruptions to the resource. Impact PK#1 addresses

physical impacts; Impacts PK#2, PK#3, and PK#4 address other impacts.

Impacts Specific to the Build Alternatives

Because the Build Alternatives would have different HSR improvements that present different effects on these resources, Table 3.15-4 includes bolded subheadings within the cells to clearly demarcate the impacts specific to one or more applicable Build Alternatives. Where project improvements would be the same under all six of the Build Alternatives, the subheading "All Six Build Alternatives" is used.

Impacts Summary

Consistent with the information presented in Section 3.15.5, the Palmdale to Burbank Project Section impacts listed in Table 3.15-4 are organized first by resource name (in order of north to south).



Table 3.15-4 Construction and Operations Impacts on Parks, Recreation, and Open Space Resources

Resource Name and Map Identification	Construction Impacts	Operations Impacts
Central Subsection	·	
Tejon Equestrian Park (1)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.	Impact PK#3: Changes to Park Character. Refined SR14, E1, and E2 Build Alternatives
(Figure 3.15-1 and Figure 3.15-5)	Refined SR14, E1, and E2 Build Alternatives Tejon Equestrian Park is outside the Refined SR14, E1, and E2 Build Alternatives' RSAs. SR14A, E1A, and E2A Build Alternatives No part of Tejon Equestrian Park would be included in the temporary impact area for the SR14A, E1A, and E2A Build Alternatives. No temporary construction easements would be required from this facility. No permanent acquisition of property from Tejon Equestrian Park extension would take place. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, E1, and E2 Build Alternatives Tejon Equestrian Park is outside of the Refined SR14, E1, and E2 Build Alternatives' RSAs. SR14A, E1A, and E2A Build Alternatives The construction of the at-grade SR14A, E1A, and E2A Build Alternative alignments east of Sierra Highway would be the nearest construction activities to the Tejon Equestrian Park, approximately 310 feet to the west. With implementation of the SR14A, E1A, and E2A Build Alternatives, an underpass on East Barrel Springs Road would be built to allow the proposed at-grade HSR alignment to pass over the road. Vehicular and pedestrian access to the equestrian	Tejon Equestrian Park is outside the Refined SR14, E1, and E2 Build Alternatives' RSAs. SR14A, E1A, and E2A Build Alternatives The at-grade segment of the HSR railway utility lines would be visible from several viewpoints within Tejon Equestrian Park. Noise from passing trains along the at-grade portion of the alignment would be perceptible to park users, including equestrians. Given the above visual- and noise-related impacts related to operation of the at-grade alignment near Tejon Equestrian Park, the SR14A, E1A, and E2A Build Alternatives would change the character of this recreation resource. However, these changes would not reduce the capacity or value of the equestrian park to the surrounding communities. The facilities closest to the SR14A, E1A, and E2A Build Alternative alignments would be the parking lot and arena, both of which do not require a quiet setting to operate. The Sierra Highway currently passes less than 1,000 feet from the park, creating an existing noisy environment. The current equestrian facilities would continue to operate as part of Tejon Equestrian Park facility with implementation of the SR14A, E1A and E2A Build Alternatives. Mitigation Measures The following mitigation measure would be implemented for the operations of the SR14A, E1A, and E2A Build Alternatives. PR-MM#8 will be employed to maintain accessibility to park facilities or to provide alternative access to ensure the park remains accessible. The Authority will provide compensation for, or enhancement of, access driveways or parking areas at Tejon Equestrian Park.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Tejon Equestrian Park Cont.	park would be affected by construction over East Barrel Springs Road during project construction. Construction associated with the would inhibit use of the resource. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including Tejon Equestrian Park (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration are reduced to a level that would allow Tejon Equestrian Park to continue to operate. Park users would also have unobstructed views of the construction activities in this area. Construction activities would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. Mitigation Measures The following mitigation measures would be implemented for the construction of the SR14A, E1A, and E2A Build Alternatives. PR - MM#1 through PR-MM#3 and PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to the park would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#5 will	There would be no impact under the Refined SR14, E1, and E2 Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#8 under the SR14A, E1A, and E2A Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, E1, and E2 Build Alternatives Tejon Equestrian Park is outside the Refined SR14, E1, and E2 Build Alternatives' RSAs. SR14A, E1A, and E2A Build Alternatives The use of Tejon Equestrian Park would not increase or decrease with implementation of the SR14A, E1A, and E2A Build Alternatives in such a way that would lead to physical deterioration. With the construction of an underpass for East Barrel Springs Road, the proposed at grade alignment would not increase access or otherwise locate new users in the vicinity of the park. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Tejon Equestrian Park Cont.	CEQA Conclusion There would be no impact under the Refined SR14, E1, and E2 Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#1, PR-MM#2, PR-MM#3, and PR-MM#5 under the SR14A, E1A, and E2A Build Alternatives.	
Palmdale Hills Trail (Proposed Extension) (2) (Figure 3.15-1 and Figure 3.15-5)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative The temporary impact area associated with construction of the Refined SR14 Build Alternative would include an approximately 0.8-mile segment of the proposed Palmdale Hills Trail extension. If the proposed trail extension is operational at the time of project construction, access to this section of the trail would be temporarily restricted, requiring a detour. Segments of the trail outside of the temporary construction area would remain open and accessible to the public. While the Refined SR14 Build Alternative would not directly require the permanent acquisition of the future trail extension, the tunnel portal in this particular area may result in topographical changes at the surface and/or other permanent improvements that would require the permanent realignment of the trail. SR14A, E1, and E2 Build Alternatives The temporary impact area associated with the construction of the SR14A, E1, and E2 Build Alternatives would include an approximately 0.8-mile segment of the proposed Palmdale Hills Trail extension. If the proposed trail extension is operational at the time of project construction, access to this section of the trail would be temporarily restricted, requiring a detour. Segments of the trail outside of the temporary construction area would remain open and accessible to the public. The SR14A, E1, and E2 Build Alternatives would construct an at-grade railway alignment that would directly conflict with the proposed trail extension. The permanent acquisition of land in this area would require the realignment of an approximately 300-foot segment of the proposed Palmdale Hills Trail extension.	Impact PK#3: Changes to Park Character. Refined SR14 Build Alternative If the Palmdale Hills Trail extension is operational at the time the Palmdale to Burbank Project Section is completed, implementation of the Refined SR14 Build Alternative would change the environment trail users' experience. The currently proposed trail extension follows a largely vacant/rural area along the north side of the California Aqueduct. As discussed under Impact PK#1, the tunnel portal in this particular area may result in topographical changes at the surface and/or other permanent improvements that would require the permanent realignment of the trail closer to major transportation corridors like SR 14, Sierra Highway, and the Metro/Metrolink Corridor. Moving the trail alignment closer to these major transportation corridors would increase the noise levels experienced by trail users. Under the currently proposed trail alignment, the at-grade segment of the Refined SR14 Build Alternative would be visible to the north from several viewpoints along the Palmdale Hills Trail. Noise from passing trains along the at-grade portion of the alignment would be perceptible to trail users. Given the above, the operations of the Refined SR14 Build Alternative would change the noise and visual environment that would affect the character of this planned resource. SR14A, E1, E1A, E2, and E2A Build Alternatives Permanent noise, vibration, air quality, or visual changes to the Palmdale Hills Trail extension, as previously described for the Refined SR14 Build Alternative, would be similar with implementation of the SR14A, E1, E1A, E2, or E2A Build Alternatives. Mitigation Measures The following mitigation measure would be implemented for the operations of all six Build Alternatives. PR-MM#8 will be employed to maintain accessibility to park facilities or to provide alternative access to ensure the



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Palmdale Hills Trail (Proposed Extension) Cont.	E1A and E2A Build Alternatives The temporary impact area associated with the construction of the E1A, and E2A Build Alternatives would include an approximately 0.8-mile segment of the proposed Palmdale Hills Trail extension. If the proposed trail extension is operational at the time of project construction, access to this section of the trail would be temporarily restricted, requiring a detour. Segments of the trail outside of the temporary construction area would remain open and accessible to the public. The E1A and E2A Build Alternatives would construct an elevated railway structure that would cross above the proposed trail extension. The permanent acquisition of land in this area would require the realignment of an approximately 300-foot segment of the proposed Palmdale Hills Trail extension. Mitigation Measures The following mitigation measures would be implemented for the construction of all six Build Alternatives. PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement would be granted as deemed necessary. These mitigation measures would ensure that each resource acquired would be accessible during construction. If construction would result in a permanent loss to the Palmdale Hills Trail, the Authority will provide necessary compensation. CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PR-MM#9 under all six Build Alternatives.	park or recreation resources remain accessible. In accordance with PR-MM#8, the Authority will also provide compensation for, or enhancement of, access driveways or parking areas at the recreation resource. CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#8 under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. All Six Build Alternatives Although the Palmdale to Burbank Project Section would require the realignment of the proposed Palmdale Hills Trail extension if it were operational by the time project construction begins, all six Build Alternatives would ensure that the trail is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail (as realigned). A technical memorandum would be prepared to identify project design features that would minimize impacts on the trail. These features may include safe and attractive access for present travel modes to ensure ease of use (PK-IAMF#1). Although changes to the noise and visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not lead to physical deterioration of the proposed trail extension as a recreation resource. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Palmdale Hills Trail (Proposed Extension) Cont.	Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative	
	See Impact PK#1. If the proposed Palmdale Hills Trail extension is operational at the time of project construction, access to an approximately 0.8-mile segment of the proposed trail extension would be temporarily restricted.	
	Construction associated with the railway alignment would temporarily increase dust and noise in area of the proposed Palmdale Hills Trail extension, which could inhibit the use of the trail segments not closed from project construction (i.e., trail segments immediately outside of the temporary impact areas). However, IAMFs incorporated into the construction methods would control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is being conducted within 1,000 feet of sensitive receivers, including trails (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the Palmdale Hills Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. If the proposed Palmdale Hills Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the Refined	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Palmdale Hills Trail (Proposed Extension) Cont.	SR14A, E1, E1A, E2, and E2A Build Alternatives Temporary noise, vibration, air quality, or visual changes to the Palmdale Hills Trail extension, as previously described for the Refined SR14 Build Alternative, would be similar with implementation of the SR14A, E1, E1A, E2, or E2A Build Alternatives. Mitigation Measures The following mitigation measures would be implemented for the construction of all six Build Alternatives. PR -MM#1 through PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to the trail would remain unaffected by construction activities by providing alternative access routes to temporarily restricted facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of the existing trail. PR-MM#5 will set conditions to use land from the trail for temporary impact areas during the construction period. CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#1, PR-MM#2, PR-MM#3, and PR-MM#5 under all six Build Alternatives.	
Vasquez Loop Trail (Proposed Extension) (3) (Figure 3.15-1, Figure 3.15-2, and Figure 3.15-7)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative At Red Rover Mine Road, the Refined SR14 Build Alternative would traverse the proposed trail extension on an elevated viaduct. Overhead electrical utility lines would also be installed across the proposed trail extension at Red Rover Mine Road, approximately 300 feet north of the railway viaduct. Temporary easements would be needed to construct the overhead facilities across the proposed Vasquez Loop Trail extension at Red Rover Road. These temporary	Impact PK#3: Changes to Park Character. Refined SR14 Build Alternative At the proposed Vasquez Loop Trail extension near Peaceful Valley Road and along Crown Valley Road, the Refined SR14 Build Alternative would be built as a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; as such, no changes to the environment experienced by trail users would occur at this location. As discussed under Impact PK#1, the construction of overhead railway viaduct and electrical utility lines would require the permanent acquisition of a segment of the proposed Vasquez Loop Trail extension along Red Rover



Resource Name and Map Identification **Construction Impacts Operations Impacts** Vasquez Loop Trail easements are not anticipated to require the temporary closure of Mine Road. Although ownership of this land would change, the trail would remain open and available to the public and would function as it was before (Proposed the trail. **Extension) Cont.** operations of the Refined SR14 Build Alternative. Ultimately, the construction of overhead electrical utility lines would require the permanent acquisition of approximately 160 feet of the Overhead railway viaduct and electrical utility lines over Red Rover Mine Road would alter views from the proposed Vasquez Loop Trail extension. proposed Vasquez Loop Trail extension. The elevated railway would require permanent acquisition of an additional 170 feet of the trail to Noise from passing trains would be perceptible to trail users. However, this allow for access and maintenance of the electrical lines. Although segment of the proposed Vasquez Loop Trail extension is predominantly ownership of this land would change, the trail would remain open developed with commercial and light industrial land uses, as well as the and available to the public after project construction is complete and SR 14 and Sierra Highway corridors. The proposed Vasquez Loop Trail would function as it was before operations of the Refined SR14 Build extension would cross under these highways approximately 250 feet south of Alternative. the elevated railway for the Refined SR14 Build Alternative. Due to the existing setting in the vicinity of the proposed HSR trail crossing, E1 and E2 Build Alternatives implementation of the Refined SR14 Build Alternative would not change the The E1 and E2 Build Alternatives would require the permanent character of this trail. acquisition of an approximately 720-foot segment of the proposed Vasquez Loop Trail extension. No temporary construction E1 and E2 Build Alternatives easements would be required beyond this segment of trail that See Impact PK#1. The E1 and E2 Build Alternatives would completely would be permanently replaced by project improvements. replace a 720-foot segment of the proposed Vasquez Loop Trail extension SR14A, E1A, and E2A Build Alternatives with project improvements. Near the SR 14/Sierra Highway interchange, the SR14A, E1A, and SR14A, E1A, and E2A Build Alternatives E2A Build Alternatives would be built as bored tunnels. No At the proposed Vasquez Loop Trail extension near the SR 14/Sierra topographical changes at the surface and/or other permanent Highway interchange, the SR14A, E1A, E2A Build Alternatives would be built changes would take place at this location; as such, no temporary or as bored tunnels. No topographical changes at the surface and/or other permanent acquisitions of this trail alignment are anticipated near permanent changes would take place; as such, no changes to the the SR 14/Sierra Highway interchange. environment experienced by trail users would occur at this location. Mitigation Measures Due to the existing setting in the vicinity of the proposed HSR trail crossing, The following mitigation measures would be implemented for the implementation of the SR14A, E1A, and E2A Build Alternatives would not construction of the E1 and E2 Build Alternatives. PR-MM#6 will change the character of this trail. return temporarily acquired land to the property owners after Mitigation Measures construction. PR-MM#7 and PR-MM#9 will require the Authority to The following mitigation measures would be implemented for the Operations consult with property owners and public agencies for the acquisition of the E1 and E2 Build Alternatives. PR-MM#8 will be employed to maintain or easement of private and public lands. Compensation. accessibility to the Vasquez Loop Trail or to provide alternative access to replacement, or enhancement would be granted as deemed ensure the park or recreation resources remain accessible. In accordance necessary. These mitigation measures would ensure that each with PR-MM#8, the Authority will provide compensation for, or enhancement resource acquired would be accessible during construction. If

construction would result in a permanent loss, the Authority will

of, access driveways or parking areas at the recreation resource.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Vasquez Loop Trail (Proposed Extension) Cont.	provide necessary compensation. With the implementation of the minimum standards required by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources. CEQA Conclusion	CEQA Conclusion There would be a less-than-significant impact under the Refined SR14, SR14A, E1A, and E2A Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#8 under the E1 and E2 Build Alternatives.
	There would be no impact under the Refined SR14, SR14A, E1A, and E2A Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PR-MM#7 under the E1 and E2 Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration,	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 Build Alternative See Impact PK#2. If the proposed Vasquez Loop Trail extension is operational during project construction, the Refined SR14 Build Alternative
	Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative At the proposed Vasquez Loop Trail extension near Peaceful Valley	would ensure that the resource is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. While changes to the noise and visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not lead to physical deterioration of the proposed Vasquez Loop Trail extension. The use of this trail would not increase or decrease with implementation of the Refined SR14 Build Alternative.
	Road, the Refined SR14 Build Alternative would be built as a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the trail crossing. Vehicular and pedestrian access to the future trail would be maintained from all existing access points during project construction. Temporary easements would be needed to build the overhead facilities across the proposed Vasquez Loop Trail extension at Red Rover Mine Road. However, these temporary easements would not likely require the closure or realignment of the trail. Access to the proposed Vasquez Loop Trail extension would be maintained at all times during project construction.	
		E1 and E2 Build Alternatives See Impact PK#1. Although the E1 and E2 Build Alternatives would entail replacement of an approximately 720-foot segment of the proposed Vasquez Loop Trail extension, the trail would remain open and available to the public after project construction is complete. The use of this trail would not increase or decrease with implementation of the E1 and E2 Build Alternatives.
		SR14A, E1A, and E2A Build Alternatives
	At Red Rover Mine Road, construction associated with the railway alignment and overhead utilities would temporarily increase dust and noise in area of the proposed Vasquez Loop Trail extension, which would inhibit the use of the trail segments. However, IAMFs incorporated into the construction methods would control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control	See Impact PK#2. If the proposed Vasquez Loop Trail extension is operational during project construction, the SR14A, E1A, and E2A Build Alternatives would ensure that the resource is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. While changes to the noise and visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not affect the functionality of the proposed

construction, the contractor will prepare a fugitive dust control



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Vasquez Loop Trail (Proposed Extension) Cont.	plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is being conducted within 1,000 feet of sensitive receivers, including trails (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the proposed Vasquez Loop Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. If the proposed Vasquez Loop Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the Refined SR14 Build Alternative. E1 and E2 Build Alternatives See Impact PK#1. The E1 and E2 Build Alternatives would require the closure and relocation of a segment of the proposed Vasquez Loop Trail extension. For those trail segments not physically acquired by the HSR improvements but within 1,000 feet of construction activities, the temporary noise, vibration, air quality, or visual changes anticipated for the Refined SR14 Build Alternative would be similar under the E1 and E2 Build Alternatives. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the fugitive dust, noise, and vibration effec	Vasquez Loop Trail extension. The use of this trail would not increase or decrease with implementation of the SR14A, E1A, and E2A Build Alternatives. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would no impact under the Refined SR14, SR14A, E1A, and E2A Build Alternatives. There would be a less-than-significant impact under the E1 and E2 Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Vasquez Loop Trail (Proposed Extension) Cont.	sensitive receivers, including trails (AQ-IAMF#1 and NV-IAMF#1). The IAMFs developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the proposed Vasquez Loop Trail extension to continue to operate.	
	SR14A, E1A, and E2A Build Alternatives At the proposed Vasquez Loop Trail extension near the SR 14/Sierra Highway interchange, the SR14, E1A, and E2A Build Alternatives would be built as bored tunnels. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the trail crossing. Vehicular and pedestrian access to the future trail would be maintained from all existing access points during project	
	construction. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. If the proposed Vasquez Loop Trail extension is not operational at	
	the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the SR14A, E1A, and E2A Build Alternatives.	
	Mitigation Measures The following mitigation measures would be implemented for the construction of the E1 and E2 Build Alternatives. PR-MM#1 through PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to facilities would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Vasquez Loop Trail (Proposed Extension) Cont.	implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land from park, recreation, and school play areas for temporary impact areas during the construction period. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14, SR14A, E1A, and E2A Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#1, PR-MM#2, PR-MM#3, and PR-MM#5 under the E1 and E2 Build Alternatives.	
Littlerock Trail (Proposed	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.	Impact PK#3: Changes to Park Character.
Extension) (4)		Refined SR14 Build Alternative
(Figure 3.15-1, Figure 3.15-5, and Figure 3.15-7)	Refined SR14 Build Alternative The Refined SR14 Build Alternative would include the construction of traction power facilities and overhead utility lines that would conflict with the proposed Littlerock Trail extension in the area of the SR 14/Sierra Highway interchange.	As discussed under Impact PK#1, traction power facilities and overhead electrical utility lines would require permanent acquisition of a segment of proposed Littlerock Trail extension along E Carson Mesa Road. Although ownership of this land would change, the trail would remain open and available to the public and would function as it was before the operation of
	Ultimately, the construction of traction power facilities would require the permanent acquisition of approximately 270 feet of the proposed Littlerock Trail extension. Although ownership of this land would change, the trail would remain open and available to the public when project construction is complete and would function as it was before the operation of the Refined SR14 Build Alternative. There are no temporary easements outside of the permanent acquisition areas, and temporary closure of the trail is not anticipated during construction.	the Refined SR14 Build Alternative. The closest segment of the Refined SR14 Build Alternative railway would be a bored tunnel approximately 1 mile (5,280 feet) northeast of the proposed Littlerock Trail extension, which would have no operations effects on this trail. Because the traction power facility would not generate loud noises, noise impacts from project operations are not anticipated for this future trail. Overhead electrical utility lines over E Carson Mesa Road would alter views from the proposed Littlerock Trail extension. However, this segment of the proposed trail extension is immediately adjacent to the SR 14 and Sierra
	E1 and E2 Build Alternatives	Highway corridors, as well as the Metrolink railway. Due to the existing
	The E1 and E2 Build Alternatives would require temporary construction easements that would conflict with an approximately 0.4-mile segment of the proposed Littlerock Trail extension. If the proposed trail extension is operational at the time of project construction, access to the trail along E Carson Mesa Road may be temporarily restricted during construction.	setting in the vicinity of the proposed traction power facilities, implementation of the Refined SR14 Build Alternative would not change the character of this trail.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Littlerock Trail (Proposed Extension) Cont.	Ultimately, the construction of traction power facilities would require the permanent acquisition of an approximately 0.2-mile segment of the proposed Littlerock Trail extension. Although ownership of this land would change, the trail would be open and made available to the public after project construction and would function as it was before the construction of the E1 or E2 Build Alternatives. **SR14A*, E1A*, and E2A Build Alternatives**	E1 and E2 Build Alternatives See Impact PK#1. The E1 and E2 Build Alternatives would permanently acquire a 0.2-mile segment of the proposed Littlerock Trail extension. Although ownership of this land would change, the trail would remain open and available to the public and would function as it was before operations of the E1 and E2 Build Alternatives. Overhead electrical utility lines over E Carson Mesa Road would alter views
	Near the SR 14/Sierra Highway interchange, the SR14A, E1A, and E2A Build Alternatives would be built as bored tunnels. No topographical changes at the surface and/or other permanent changes would take place at this location; as such, no temporary or permanent acquisitions of this trail alignment are anticipated near the SR 14/Sierra Highway interchange. Mitigation Measures The following mitigation measures would be implemented for the	from the proposed Littlerock Trail extension, and train operations within an open retained cut/trench immediately north and south of the proposed Littlerock Trail crossing would be perceptible to trail users. However, this segment of the proposed trail extension is immediately adjacent to the SR 14 and Sierra Highway corridors, as well as the Metrolink Rail Corridor. Due to the existing setting in the vicinity of the proposed Littlerock Trail extension, implementation of the E1 and E2 Build Alternatives would not change the character of this trail. SR14A, E1A, and E2A Build Alternatives
	construction of the Refined SR14, E1, and E2 Build Alternatives. PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement will be granted as deemed necessary. These mitigation measures will ensure that each resource acquired will be accessible during construction. If construction would result in a permanent loss, the Authority will provide necessary compensation. With the implementation of the minimum standards required by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources.	At the proposed Littlerock Trail extension near the SR 14/Sierra Highway interchange, the SR14A, E1A, and E2A Build Alternatives would be built a bored tunnels. No topographical changes at the surface or other permane changes would take place; as such, no changes to the environment experienced by trail users would occur at this location. Due to the existing setting in the vicinity of the proposed HSR trail crossing implementation of the SR14A, E1A, and E2A Build Alternatives would not change the character of this trail. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion
	CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PR-MM#9 under the Refined SR14, E1, and E2 Build Alternatives. There would be no impact under the SR14A, E1A, and E2A Build Alternatives.	There would be a less-than-significant impact under all six Build Alternatives.



Resource Name and Map Identification Construction Impacts	Operations Impacts
Littlerock Trail (Proposed Extension) Cont. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative Temporary easements would be needed to build the traction power facilities across the proposed Littlerock Trail extension at E Carson Mesa Road. These temporary easements are not anticipated to require the closure or realignment of the trail. Vehicular and pedestrian access to the future trail would be maintained from all existing access points or temporary alternate access points during project construction. Construction associated with the traction power facilities would temporarily increase dust and noise in area of the proposed Littlerock Trail extension, which would inhibit the use of the trail segments outside of the physical impact areas. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is being conducted within 1,000 feet of sensitive receivers, including trails (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the proposed Littlerock Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to precons	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 Build Alternative See Impact PK#2. If the proposed Littlerock Trail extension is operational during project construction, the Refined SR14 Build Alternative would ensure that the resource is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. Although changes to the visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not lead to physical deterioration of the proposed Littlerock Trail extension. The use of this trail would not increase or decrease with implementation of the Refined SR14 Build Alternatives See Impact PK#1. The E1 and E2 Build Alternatives would completely replace a 0.2-mile segment of the proposed Littlerock Trail extension with HSR improvements. The impacts of the E1 and E2 Build Alternatives would be same as those listed under Impact PK#4 for the Refined SR14 Build Alternative. SR14A, E1A, and E2A Build Alternatives See Impact PK#2. If the proposed Littlerock Trail extension is operational during project construction, the SR14A, E1A, and E2A Build Alternatives would ensure that the resource is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. While changes to the noise and visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not affect the functionality of the proposed Littlerock Trail extension. The use of this trail would not increase or decrease with implementation of the SR14A, E1A, and E2A Build Alternatives. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under all s



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Littlerock Trail (Proposed Extension) Cont.	vibration, air quality, or visual changes associated with the Refined SR14 Build Alternative. Implementation of the Refined SR14 Build Alternative would not preclude the proposed extension of the Littlerock Trail.	
	E1 and E2 Build Alternatives	
	See Impact PK#1. Temporary easements would be needed to build the traction power facilities and overhead utilities and station across the proposed Littlerock Trail extension at East Carson Mesa Road. These temporary easements are not anticipated to require the temporary closure of a 0.4-mile segment of the proposed Littlerock Trail extension.	
	The temporary noise, vibration, air quality, or visual changes anticipated for the Refined SR14 Build Alternative would be similar under the E1 and E2 Build Alternatives.	
	SR14A, E1A, and E2A Build Alternatives	
	At the proposed Littlerock Trail extension near the SR 14/Sierra Highway interchange, the SR14, E1A, and E2A Build Alternatives would be built as bored tunnels. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the trail crossing. Vehicular and pedestrian access to the future trail would be maintained from all existing access points during project construction.	
	Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction.	
	If the proposed Littlerock Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the SR14A, E1A, and E2A Build Alternatives.	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Littlerock Trail (Proposed Extension) Cont.	Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under all six Build Alternatives. Impact PK#1: Acquisition of Parks, Recreation, and Open Space	Impact PK#3: Changes to Park Character.
Trail (Proposed Extension) (5) (Figure 3.15-1, Figure 3.15-2, Figure 3.15-9, Figure 3.15-10, and Figure 3.15-11)	Resources. Refined SR14 and SR14A Build Alternatives The Acton Community Trail is outside the Refined SR14 and SR14A Build Alternatives' RSAs. E1, E1A, E2, and E2A Build Alternatives The E1, E1A, E2, and E2A Build Alternatives would require temporary construction easements that would conflict with an approximately 0.25-mile segment of the proposed Acton Community Trail extension near Vincent View Road, and a 0.5-mile segment of the trail along Arrastre Canyon Road. If the proposed trail extension is operational at the time of project construction, access to the trail in these areas would be temporarily restricted. Ultimately, the construction of traction power facilities would require the permanent acquisition of an approximately 150-foot segment of the proposed Acton Community Trail extension, creating a gap in the continuous trail connections north and south of this acquisition. Mitigation Measures The following mitigation measures would be implemented for the construction of the E1, E1A, E2, and E2A Build Alternatives. PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement would be granted as deemed necessary. These mitigation measures would ensure that each resource acquired would be accessible during construction. If construction would result in a permanent loss, the Authority will provide necessary compensation. With the implementation of the	Refined SR14 and SR14A Build Alternatives The Acton Community Trail is outside the Refined SR14 and SR14A Build Alternatives' RSAs. E1, E1A, E2, and E2A Build Alternatives As discussed under Impact PK#1, the construction of the railway alignment and traction power station would require the permanent acquisition and closure of a segment of the proposed Acton Community Trail extension, creating a gap in the continuous trail connections north and south of this acquisition. Under the currently proposed trail alignment, the at-grade segment of the HSR railway and the overhead electrical utility lines would be visible from several viewpoints along the Acton Community Trail. Noise from passing trains along the at-grade portion of the alignment would be perceptible to trail users. However, this segment of the proposed Acton Community Trail extension would be immediately adjacent to the Vincent Grade/Acton Metrolink Station and associated railways. Due to the existing urban setting in the vicinity of the proposed HSR improvements, implementation of the E1, E1A, E2, and E2A Build Alternatives would not change the character of those trail segments that would not be permanently replaced or realigned by HSR improvements. Mitigation Measures The following mitigation measures would be implemented for the operations of the E1, E1A, E2, and E2A Build Alternatives. PR-MM#8 will be employed to maintain accessibility to the Acton Community Trail or to provide alternative access to ensure the park or recreation resources remain accessible. In accordance with PR-MM#8, the Authority will provide



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Acton Community Trail (Proposed Extension) Cont.	minimum standards required by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources. CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PRMM#9 under the E1, E1A, E2, and E2A Build Alternatives. There would be no impact under the Refined SR14 and SR14A Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives The Acton Community Trail is outside the Refined SR14 and SR14A Build Alternatives' RSAs. E1, E1A, E2, and E2A Build Alternatives The E1, E1A, E2, and E2A Build Alternatives would require temporary construction easements that would conflict with the proposed Acton Community Trail extension near Vincent View Road and along Arrastre Canyon Road if it is operational by project construction. These temporary easements are anticipated to require the closure or realignment of the trail. Access to the proposed trail extension would be temporarily restricted during project construction. Construction associated with the railway alignment and traction power facilities would temporarily increase dust and noise in area of the proposed Acton Community Trail extension, which would inhibit the use of the trail segments outside of the physical impact areas. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs could be applied when work is being conducted within	compensation for, or enhancement of, access driveways or parking areas at the recreation resource. CEQA Conclusion There would be a less-than-significant impact with the implementation of PRMM#8 under the E1, E1A, E2, and E2A Build Alternatives. There would be no impact under the Refined SR14 and SR14A Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 and SR14A Build Alternatives The Acton Community Trail is located outside of the Refined SR14 and SR14A Build Alternatives' RSAs. E1, E1A, E2, and E2A Build Alternatives See Impact PK#1. The E1, E1A, E2, and E2A Build Alternatives would completely replace a 150-foot segment of the proposed Acton Community Trail extension with HSR improvements, creating a gap in the continuous trail connections north and south of this acquisition. This gap would create a physical barrier that would lead to decreased trail use and physical deterioration of the trail. Mitigation Measures The following mitigation measure would be implemented for operations of the E1, E1A, E2, and E2A Build Alternatives. PR-MM#8 will require the Authority to consult with the trail property owners regarding changes to and compensation for the replacement of access facilities. The Authority will ensure that connections to the Acton Community Trail would be maintained and that project improvements would not result in physical deterioration of the trail. CEQA Conclusion There would be a less-than-significant impact with the implementation of PRMM#8 under the E1, E1A, E2, and E2A Build Alternatives. There would be no impact under the Refined SR14 and SR14A Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Acton Community Trail (Proposed Extension) Cont.	1,000 feet of sensitive receivers, including trails (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the proposed Acton Community Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. If the proposed Acton Community Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the E1, E1A, E2, and E2A Build Alternatives. Mitigation Measures	
	The following mitigation measures would be implemented for the construction of the E1, E1A, E2, and E2A Build Alternatives. PR-MM#1 through PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to facilities would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land from park, recreation, and school play areas for temporary impact areas during the construction period. CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#1 through PR-MM#5 under the E1, E1A,	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Acton Community Trail (Proposed Extension) Cont.	E2, and E2A Build Alternatives. There would be no impact under the Refined SR14 and SR14A Build Alternatives.	
Darrell Readmond Trail (Proposed Extension) (8) (Figure 3.15-2, Figure 3.15-6, and Figure 3.15-11)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative No part of the proposed Darrell Readmond Trail extension would be included in the temporary impact area for the Refined SR14 Build Alternative. No temporary construction easements would be required from this facility. The utility easement would not affect surface improvements along Escondido Canyon Road. No permanent acquisition of property from the proposed Darrell Readmond Trail extension would take place. SR14A Build Alternative At Escondido Canyon Road, the SR14A Build Alternative would be a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place at this location; as such, no temporary or permanent acquisitions of this trail alignment are anticipated at Escondido Canyon Road. E1, E1A, E2, and E2A Build Alternatives The Darrell Readmond Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative The construction of the elevated Refined SR14 Build Alternative over Escondido Canyon Road would be the nearest construction activities to the proposed trail extension, approximately 250 feet to	Impact PK#3: Changes to Park Character. Refined SR14 Build Alternative The subsurface utility easement in Escondido Canyon Road would not affect the existing character of the area where the proposed Darrell Readmond Trail extension would be. No changes in access to the trail would occur. Construction of railway viaduct over Escondido Canyon Road would be visible from the proposed Darrell Readmond Trail extension, which would have potential to affect the trail's character during operations. However, due to the distance of the Refined SR14 Build Alternative alignment and proximity of the SR 14 freeway, the operations and maintenance of the Refined SR14 Build Alternative would not change the character of the proposed trail extension. SR14A Build Alternative At the proposed Darrell Readmond Trail extension at Escondido Canyon Road, the SR14A Build Alternative would be a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; as such, no changes to the environment experienced by trail users would occur at this location. Due to the existing setting in the vicinity of the proposed HSR trail crossing, implementation of the SR14A Build Alternative would not change the character of this trail. E1, E1A, E2, and E2A Build Alternatives The Darrell Readmond Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14 Build Alternative. There would be no impact under the SR14, E1, E1A, E2, and E2A Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Darrell Readmond Trail (Proposed Extension) Cont.	the west. Vehicular and pedestrian access to the future trail would be maintained from all existing access points during project construction. Construction associated with the Refined SR14 Build Alternative railway would temporarily increase dust and noise at this resource, which would inhibit the use of the trail's northern terminus. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including the proposed Darrell Readmond Trail extension (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration are reduced to a level that would allow the Darrell Readmond Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. If the proposed Darrell Readmond Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the Refined SR14 Build Alternative At the proposed Darrel Readmond Trail extension at Escondido Canyon Road, the SR14A Build Alternative would be built as a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; as such, no	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 Build Alternative Because the Refined SR14 Build Alternative alignment would be approximately 350 feet from the trail terminus, noise from operations of the HSR would not increase or decrease use of the proposed Darrell Readmond Trail extension; therefore, it would not lead to physical deterioration of the trail. SR14A Build Alternatives See Impact PK#2. If the proposed Darrell Readmond Trail extension is operational during project construction, the SR14A Build Alternative would ensure that the proposed resource is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. While changes to the noise and visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not lead to physical deterioration of the proposed Darrell Readmond Trail extension. The use of this trail would not increase or decrease with implementation of the SR14A Build Alternative. E1, E1A, E2, and E2A Build Alternatives The Darrell Readmond Trail is outside the E1 and E1A, and E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Darrell Readmond Trail (Proposed Extension) Cont.	the future trail would be maintained from all existing access points during project construction. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. If the proposed Darrell Readmond Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the SR14A Build Alternative. E1, E1A, E2, and E2A Build Alternatives The Darrell Readmond Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the SR14 and	Operations impacts
	SR14A Build Alternatives. There would be no impact under the E1, E1A, E2, and E2A Build Alternatives.	
Playgrounds at Vasquez High School (6) (Figure 3.15-7)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative No part of Vasquez High School would be included in the temporary impact area for the Refined SR14 Build Alternative. No temporary construction easements would be required from this facility. The utility easement would not affect surface improvements along Escondido Canyon Road. No permanent acquisition of high school property would occur. SR14A Build Alternative At Vasquez High School near Escondido Canyon Road, the SR14A Build Alternative would be constructed as a bored tunnel. No	Impact PK#3: Changes to Park Character. Refined SR14 Build Alternative The subsurface utility easement in Escondido Canyon Road would not affect the existing character of the Vasquez High School outdoor play areas. No changes in permanent access to the high school would occur. Construction of the railway viaduct over Escondido Canyon Road would be visible from the high school, which would have potential to affect the resource's character during operations. However, due to the distance of the HSR improvements and proximity of the SR 14 freeway, operations and maintenance of the Refined SR14 Build Alternative would not change the character of the school's outdoor play areas.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Vasquez High School Cont.	topographical changes at the surface and/or other permanent changes would take place at this location; as such, no temporary or permanent acquisitions of the school are anticipated near Escondido Canyon Road.	SR14A Build Alternative At Vasquez High School near Escondido Canyon Road, the SR14A Build Alternative would be constructed as a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; a
	E1, E1A, E2, and E2A Build Alternatives Vasquez High School is outside the E1, E1A, E2, and E2A Build	such, no changes to the environment experienced by users would occur at this location.
	Alternatives RSAs. Mitigation Measures	Due to the existing setting in the vicinity of the proposed HSR trail crossing, implementation of the SR14A Build Alternative would not change the character of this resource.
	No mitigation measures are required for this impact.	E1, E1A, E2, and E2A Build Alternatives
	There would be no impact under all six Build Alternatives.	Vasquez High School is outside the E1, E1A, E2, and E2A Build Alternatives RSAs.
	Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.	Mitigation Measures
		No mitigation measures are required for this impact.
	Refined SR14 Build Alternative	CEQA Conclusion
	The closest physical HSR improvements to the high school would be	There would be no impact under all six Build Alternatives.
	a new access road beyond the SR 14 freeway corridor, and a temporary construction staging area approximately 1,000 feet northwest of the school. Vehicular and pedestrian access to the high school would be maintained from all existing access points during project construction. Because of the relative distance between the school and these HSR improvements, and the intervening	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources.
		Refined SR14 Build Alternative
		Because the portion of the footprint that is 1,000 feet from the school is a temporary construction area, construction activities closest to the school would cease after construction. Because the aboveground Refined SR14 Build Alternative alignment is over 1,000 feet from the school, noise from operations and maintenance would not increase or decrease use of the Vasquez High School play areas and would not lead to physical deterioration
	SR14A Build Alternative	of the school play areas.
	At Vasquez High School near Escondido Canyon Road, the SR14A	SR14A Build Alternative
	Build Alternative would be constructed as a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the school. Vehicular and pedestrian access to the future trail would be maintained from all existing access points during project construction.	See Impact PK#2. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the recreational resources that would increase or decrease access to the resources. The Palmdale to Burbank Project Section would not affect the functionality of the recreational resources. The use of these resources would not increase or decrease with implementation of the SR14A Build Alternative or lead to physical deterioration of the school play areas.

deterioration of the school play areas.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Vasquez High School Cont.	Resource users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. E1, E1A, E2, and E2A Build Alternatives Vasquez High School is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	E1, E1A, E2, and E2A Build Alternatives Vasquez High School is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.
Playgrounds at High Desert Middle School (9) (Figure 3.15-4)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives No part of High Desert Middle School would be included in the temporary impact area for the Refined SR14 and SR14A Build Alternatives. No temporary construction easements would be required from this facility. No permanent acquisition of high school property would occur. E1, E1A, E2, and E2A Build Alternatives High Desert Middle School is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	Impact PK#3: Changes to Park Character. Refined SR14 and SR14A Build Alternatives Because of the distance from the school and the intervening freeway corridor, the access roadway improvements to Clanfield Road would not affect the existing character of the High Desert Middle School outdoor play areas. No changes in permanent access to the high school would occur. The closest HSR railway alignment would be a bored tunnel adjacent to the southern property line (SR14A Build Alternative) and a tunnel (cut and cover and bored) segment approximately 0.5 mile (2,640 feet) north of the school (Refined SR14 Build Alternative). Neither of these would change the character of the school's outdoor play areas. E1, E1A, E2, and E2A Build Alternatives High Desert Middle School is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at High Desert Middle School Cont.	Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives The closest physical HSR improvements to the High Desert Middle School would be a new access road, which would be on the opposite side of the SR 14 freeway corridor. Because of the relative distance between the school and these HSR improvements and the intervening freeway, construction associated with the Refined SR14 and SR14A Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to the middle school outdoor play areas. Vehicular and pedestrian access to the middle school would be maintained from all existing access points during project construction. E1, E1A, E2, and E2A Build Alternatives High Desert Middle School is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 and SR14A Build Alternatives Because of the distance from the school and the intervening freeway corridor, the access roadway improvements to Clanfield Road would not affect use of the High Desert Middle School outdoor play areas or lead to physical deterioration of the school play areas. E1, E1A, E2, and E2A Build Alternatives High Desert Middle School is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.
Acton Wash Wildlife Sanctuary (10) (Figure 3.15-1, Figure 3.15-2, and Figure 3.15-13)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives Acton Wash Wildlife Sanctuary is outside the Refined SR14 and SR14A Build Alternatives' RSAs. E1, E1A, E2, and E2A Build Alternatives The utility easement along Aliso Canyon Road and associated physical improvements would be at least 2 miles away and thus would not present construction impacts on the Acton Wash Wildlife Sanctuary. Vehicular and pedestrian access to the wildlife sanctuary would be maintained from all existing access points during project construction.	Impact PK#3: Changes to Park Character. Refined SR14 and SR14A Build Alternatives Acton Wash Wildlife Sanctuary is outside the Refined SR14 and SR14A Build Alternatives' RSAs E1, E1A, E2, and E2A Build Alternatives The closest HSR physical improvements would be 2 miles away and thus would not change the character of the Acton Wash Wildlife Sanctuary. Vehicular and pedestrian access to the wildlife sanctuary would be maintained from all existing access points. Because of the distance, noise and visual impacts associated with operations of the E1, E1A, E2, and E2A Build Alternatives would not affect the existing character or alter the resource's primary function as a wildlife sanctuary.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Acton Wash Wildlife Sanctuary Cont.	Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives Acton Wash Wildlife Sanctuary is outside the Refined SR14 and SR14A Build Alternatives' RSAs. E1, E1A, E2, and E2A Build Alternatives The utility easement along Aliso Canyon Road and associated physical improvements would be at least 2 miles away and thus would not present construction impacts on the Acton Wash Wildlife Sanctuary. Vehicular and pedestrian access to the wildlife sanctuary would be maintained from all existing access points during project construction. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 and SR14A Build Alternatives Acton Wash Wildlife Sanctuary is outside the Refined SR14 and SR14A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. E1, E1A, E2, and E2A Build Alternatives The use of the Acton Wash Wildlife Sanctuary would not increase or decrease with implementation of the Palmdale to Burbank Project Section because it does not propose infrastructure that would physically affect access to the wildlife refuge. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Vasquez Rocks Natural Area Park (12) Figure 3.15-2 and Figure 3.15-7)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives No part of Vasquez Rocks Natural Area Park would be included in the temporary impact area for the Refined SR14 and SR14A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from Vasquez Rocks Natural Area Park would take place. E1, E1A, E2, and E2A Build Alternatives Vasquez Rocks Natural Area Park is outside the E1 E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives The utility easement along Agua Dulce Canyon Road would have no associated physical improvements and would not present construction impacts on the Vasquez Rocks Natural Area Park. The closest physical HSR improvements to the park would be 1,000 feet south, beyond the SR 14 freeway corridor. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. Because of the relative distance between the Vasquez Rocks Natural Area Park and the HSR improvements, and the intervening freeway, construction associated with the Refined SR14 and SR14A Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to park.	Impact PK#3: Changes to Park Character. Refined SR14 and SR14A Build Alternatives The utility easement along Agua Dulce Canyon Road would not present new impacts that would change the character of the Vasquez Rocks Natural Area Park due to the presence of existing utility easements in the area. In addition, vehicular and pedestrian access to the park would be maintained from all existing access points. The closest physical HSR improvements to the Vasquez Rocks Natural Area Park would be 1,000 feet to the south. Because of the relative distance between the park and the HSR improvements and the intervening SR 14 freeway corridor, operations of the Refined SR14 and SR14A Build Alternatives would not affect the existing character of the park. E1, E1A, E2, and E2A Build Alternatives Vasquez Rocks Natural Area Park is outside the E1 E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 and SR14A Build Alternatives Given the distance of the HSR improvements from Vasquez Rocks Natural Area and that the SR 14 freeway is between the proposed HSR alignment and the park, operations and maintenance of the HSR improvements would not result in noise or other impacts that would affect use of Vasquez Rocks Natural Area Park. Refined SR14 and SR14A Build Alternative operations would also not lead to physical deterioration of the park. E1, E1A, E2, and E2A Build Alternatives Vasquez Rocks Natural Area Park is outside the E1 E1A, E2, and E2A Build Alternatives' RSAs.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Vasquez Rocks Natural Area Park Cont.	E1, E1A, E2, and E2A Build Alternatives Vasquez Rocks Natural Area Park is outside the E1 E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion	Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.
Pacific Crest Trail (PCT) (11) (Figure 3.15-4 and Figure 3.15-9)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative An approximately 400-foot segment of the PCT would be affected by construction and construction staging for the Refined SR14 Build Alternative. The Authority has consulted with the Pacific Crest Trail Association, the Bureau of Land Management, and the USFS regarding trail realignment options and has developed a preliminary trail realignment that would be part of the Refined SR14 Build Alternative, if selected. The realignment would be built and accessible to the public before construction of the Refined SR14 Build Alternatives begin to ensure continuous access to the PCT through the Refined SR14 Build Alternative's construction footprint (see Figure 3.15-17). See Impact PK#2. SR14A, E1, E1A, E2, and E2A Build Alternatives The PCT is outside the SR14A, E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14 Build Alternative. There would be no impact under the SR14A, E1, E1A, E2, and E2A Build Alternatives.	Impact PK#3: Changes to Park Character. Refined SR14 Build Alternative See Impact PK#2. A proposed PCT realignment would be part of the Refined SR14 Build Alternatives, if selected. The proposed realignment has been designed to minimize air quality, visual, and noise impacts on users of the PCT by routing trail uses away from both the SR 14 freeway and the HSR rail alignment as quickly as possible. This may be an overall benefit to trail users as the existing trail runs parallel to the east side of the SR 14 freeway for roughly 0.75 mile before heading further east. Therefore, operations and maintenance of the Refined SR14 Build Alternatives would not result in adverse changes to the character of this recreation resource or reduce its capacity or value in the long term and could result in beneficial effects for PCT users. SR14A, E1, E1A, E2, and E2A Build Alternatives The PCT is outside the SR14A, E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14 Build Alternative. There would be no impact under the SR14A, E1, E1A, E2, and E2A Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Pacific Crest Trail (PCT) Cont.	Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 Build Alternative The Refined SR14 Build Alternative could have temporary and permanent improvements that would directly conflict with the PCT. However, the Authority has consulted with the Pacific Crest Trail Association, the Bureau of Land Management, and the USFS regarding trail realignment options and has developed a preliminary trail realignment that would be part of the Refined SR14 Build Alternative, if selected. The realignment would be built and accessible to the public before construction of the Refined SR14 Build Alternatives begin to ensure continuous access to the PCT through the Refined SR14 Build Alternative construction footprint. Given this, construction of the Refined SR14 Build Alternative would not temporarily create a barrier for access or inhibit use of the PCT. Construction associated with the Refined SR14 Build Alternatives would temporarily increase dust and noise at the PCT, which could inhibit the use of the trail. Furthermore, IAMFs would reduce and avoid impacts related to dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for minimizing construction fugitive dust, noise, and vibration impacts. These measures would be applied when work is conducted within 1,000 feet of sensitive receivers, including the existing and proposed PCT realignment (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the PCT extension to continue to operate. PCT users would have unobstructed views of the construction activities. Staging areas would introduce major visu	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 Build Alternative See Impact PK#3. Implementation of the Refined SR14 Build Alternative would not increase access or otherwise draw new users within the vicinity of the PCT. With the realignment of the PCT incorporated into the HSR system design, the Refined SR14 Build Alternative would not inhibit access or the desirability of the resource overall, to the extent that it would decrease use. A technical memorandum would be prepared to identify project design features that would minimize impacts on the trail. These features may include safe and attractive access for present travel modes to ensure ease of use (PK-IAMF#1). Given the above, the use of the PCT would not increase or decrease with implementation of the Refined SR14 Build Alternative or lead to physical deterioration of the PCT. SR14A, E1, E1A, E2, and E2A Build Alternatives The PCT is outside the SR14A, E1 and E1A, and E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Pacific Crest Trail (PCT) Cont.	temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. **SR14A, E1, E1A, E2, and E2A Build Alternatives** The PCT is outside the SR14A, E1, E1A, E2, and E2A Build Alternatives' RSAs. **Mitigation Measures** The following mitigation measures would be implemented for the construction of the E1, E1A, E2, and E2A Build Alternatives. PR-MM#1 through PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PRMM#1 and PR-MM#2 will ensure that access to the PCT would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land from park, recreation, and school play areas for temporary impact areas during the construction period. **CEQA Conclusion** There would be a less-than-significant impact with the implementation of PR-MM#1 through PR-MM#5 under the Refined SR14 Build Alternative. There would be no impact under the SR14, E1, E1A, E2 and E2A Build Alternatives.	



Resource Name and Map Identification Santa Clara River Trail (Proposed Extension) (15) (Figure 3.15-2 and Figure 3.15-8)

Construction Impacts

Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.

Refined SR14 and SR14A Build Alternatives

The construction of the Refined SR14 and SR14A Build Alternatives' elevated viaduct over the Santa Clara River would require the permanent acquisition of an approximately 200-foot segment of the proposed Santa Clara River Trail extension near Soledad Canyon Road. Additionally, construction of overhead electrical utility lines would require the permanent acquisition of an approximately 160-foot segment of the proposed Santa Clara River Trail extension near Lang Station Road. Although ownership of this land would change, the trail would remain open and available to the public, and the overall connectivity of the trail both locally and across its entire length would remain as it was before the construction of the Refined SR14 and SR14A Build Alternatives. No additional temporary construction easements would be needed beyond the permanent acquisition areas for the viaduct and utility line crossings.

E1, E1A, E2, and E2A Build Alternatives

The Santa Clara River Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs.

Mitigation Measures

The following mitigation measures would be implemented for the construction of the Refined SR14 and SR14A Build Alternatives. PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement will be granted as deemed necessary. These mitigation measures will ensure that each resource acquired would be accessible during construction. If construction would result in a permanent loss, the Authority will provide necessary compensation. With the implementation of the minimum standards required by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources.

Operations Impacts

Impact PK#3: Changes to Park Character.

Refined SR14 and SR14A Build Alternatives

As discussed under Impact PK#1, the railway viaduct and electrical utility lines over the Santa Clara River would require the permanent acquisition of two segments of the proposed Santa Clara River Trail extension. Although ownership of this land would change, the trail would remain open and available to the public and would function as it was before operations of the Refined SR14 and SR14A Build Alternatives.

Train operations on the viaduct and the overhead electrical utility lines over the Santa Clara River would alter views from the proposed trail extension. Noise from passing trains along the at-grade portion of the alignment would also be perceptible to trail users. However, this segment of the proposed trail extension is immediately adjacent to the Metrolink Rail Corridor and the Vulcan Mine. Due to the existing setting in the vicinity of the proposed viaduct and utility crossings, implementation of the Refined SR14 and SR14A Build Alternatives would not change the character of this trail.

E1, E1A, E2, and E2A Build Alternatives

The Santa Clara River Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs.

Mitigation Measures

No mitigation measures are required for this impact.

CEQA Conclusion

There would be a less-than-significant impact under the Refined SR14 and SR14A Build Alternatives. There would be no impact under the E1, E1A, E2, and E2A Build Alternatives.

Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources.

Refined SR14 and SR14A Build Alternatives

See Impact PK#2. If the proposed Santa Clara River Trail extension is implemented prior to the project, the Authority will ensure that the resource is fully functional at the time project operation begins. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. While changes to the visual environment would affect the experience for trail users, the



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Santa Clara River Trail (Proposed Extension) Cont.	There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PR-MM#9 under the Refined SR14 and SR14A Build Alternatives. There would be no impact under the E1, E1A, E2, and E2A Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives If the proposed Santa Clara River Trail extension is operational at the time of project construction, installation of overhead utility lines and the elevated railway alignment over the Santa Clara River would require partial closure of the trail during construction. Access to these sections of the trail outside of this area would remain open and accessible to the public. This effect would create a barrier for access or inhibit use of this resource. Construction associated with the Refined SR14 and SR14A Build Alternatives railway would temporarily increase dust and noise at the proposed Santa Clara River Trail extension, which would inhibit the use of the trails. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including the proposed Santa Clara River Trail extension (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the Santa Clara River Trail extension to continue to operate.	Refined SR14 and SR14A Build Alternatives would not lead to physical deterioration of the proposed Santa Clara River Trail extension. The use of this trail would not increase or decrease with implementation of the Refined SR14 and SR14A Build Alternatives. E1, E1A, E2, and E2A Build Alternatives The Santa Clara River Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Santa Clara River Trail (Proposed Extension) Cont.	Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction.	
	If the proposed Santa Clara River Trail extension is not operational at the time of project construction, there would be no temporary noise, vibration, air quality, or visual changes associated with the Refined SR14 and SR14A Build Alternatives.	
	E1, E1A, E2, and E2A Build Alternatives	
	The Santa Clara River Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs.	
	Mitigation Measures	
	The following mitigation measures would be implemented for the construction of the Refined SR14 and SR14A Build Alternatives. PR-MM#1 through PR-MM#5 (discussed in Section 3.15-114) will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PRMM#1 and PR-MM#2 will ensure that access to the Santa Clara River Trail would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will	
	implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land from park, recreation, and school play areas for temporary impact areas during the construction period. CEQA Conclusion	
	There would be a less-than-significant impact with the implementation of PR-MM# through PR-MM#5 under the Refined SR14 and SR14A Build Alternatives. There would be no impact under the E1, E1A, E2, and E2A Build Alternatives.	



Resource Name and Map Identification **Construction Impacts Operations Impacts** Impact PK#1: Acquisition of Parks, Recreation, and Open Space **Angeles National** Impact PK#3: Changes to Park Character. Forest including the Resources³. Refined SR14 and SR14A Build Alternatives San Gabriel Refined SR14 and SR14A Build Alternatives The Refined SR14 and SR14A Build Alternatives would include a bored **Mountains National** tunnel through an approximately 12-mile section of the ANF including the The surface features of tunnel portals—where the HSR alignment Monument (7) would enter and exit the tunnel—would be outside the ANF. SGMNM. The tunnel would have a maximum depth of 2,080 feet. Operations (Figure 3.15-9 and in the Refined SR14 and SR14A Build Alternatives tunnel beneath the ANF However, the construction of tunnel portals would require a large Figure 3.15-18) area of excavation and deposition at the Vulcan Mine. This would not result in impacts such as noise or vibration at the surface. excavation would extend into the ANF, including the SGMNM. The Permanent surface improvements within the ANF, including the SGMNM, excavated area would be restored at the end of construction, but the would occupy approximately 0.6 acre of land for existing access roadways land would remain as HSR right-of-way. A total of 28 acres of ANF and 5 acres for electrical utility facilities. Alternative utility easements would and the SGMNM would be temporarily used as a construction largely follow existing roadways and utility easements within the ANF. As a staging area under the Refined SR14 and SR14A Build Alternatives. result, operations and maintenance of these facilities would not result in a substantive change in character during project operations. Additionally, approximately 127.2 acres of land around the Vulcan Mine would be used for disposal of construction spoils. 4 The Vulcan Approximately 219 acres of land within the Vulcan Mine site would be Mine site is not a recreation or open space resource. Spoils from regraded and restored to a condition better reflecting the surrounding tunnel construction would be used to fill the existing Vulcan Mine pit. topography, improving the appearance of the area during operations. After construction, approximately 219 acres of land within the Vulcan E1 and E1A Build Alternatives Mine site would be regraded and restored to a more natural The E1 and E1A Build Alternatives would include a bored tunnel through an topographic character. The acquired areas described above within approximately 16.5-mile section of the ANF, including the SGMNM. The the ANF and the SGMNM are not used for active recreation and tunnel would have a maximum depth of 2,060 feet. Operation of the E1 and much of the area (Vulcan Mine) is not open to the public. E1A Build Alternatives tunnel beneath ANF would not result in operations One of the three adit options for the Refined SR14 and SR14A Build impacts such as noise or vibration at the surface. Alternatives is on a private in-holding (i.e., private property not for Permanent surface improvements would occupy approximately 6.5 acres of recreational use) near existing roadways within the ANF. The other the ANF, including the SGMNM, related to the lowering the profile of Aliso two adit options are outside of the ANF. Construction would not Canyon Road and 6.2 acres for electrical utilities. The E1 and E1A Build affect active recreation resources (e.g., campgrounds, trails) within Alternatives' utility easements would largely follow existing roadways or utility the ANF, including the SGMNM. easements within the ANF, including the SGMNM. Operations and The total use of USFS land under the Refined SR14 and SR14A maintenance of these facilities during project operation would be similar to Build Alternatives would represent 0.04 percent of the ANF. Because these areas do not provide active recreation resources, are

not open to the public, and represent a very small portion of the ANF

August 2022 California High-Speed Rail Authority

³ To allow for construction activities within the ANF, including SGMNM, the Authority would gain a permanent easement for the use of USFS lands. While this is not an acquisition, the effects of the permanent easement are discussed under Impact PK#1.

⁴ The Authority is conducting ongoing coordination with the USFS regarding acquisition of land and spoils disposal within Vulcan Mine.



Resource Name and Map Identification

Construction Impacts

Operations Impacts

Angeles National Forest including the San Gabriel Mountains National Monument Cont. the impacts of the Refined SR14 and SR14A Build Alternatives would not adversely affect the ANF, including the SGMNM, from continuing to function as a national and regional recreation resource.

E1 and E1A Build Alternatives

Approximately 38 acres of the ANF, including the SGMNM, would be used under the E1 and E1A Build Alternatives, as shown in Figure 3.15-10 through Figure 3.15-13, for construction, including grading activities, near Aliso Canyon Road. The land is currently undeveloped and does not have motorized access. This area of the resource is available for recreational uses as open space but does not have developed recreational facilities such as campgrounds, trails, or picnic areas.

The E1 and E1A Build Alternatives include two adit options within the ANF, including the SGMNM. Adit Option E1-A1 would require a 33-acre temporary construction staging area at the surface, and adit Option E1-A2 would require a 28-acre temporary construction staging area. The adit options would involve the placement of the adit within private in-holdings (private property not designated as recreational use) near existing roadways within the ANF. This land is not open to the public. The total use of land under the E1 and the E1A Build Alternatives would represent less than 0.01 percent of the ANF. Acquisition of the land described here would not adversely affect the ANF, including the SGMNM, from continuing to function as

E2 and E2A Build Alternatives

a national and regional recreation resource.

Approximately 38 acres of the ANF, including the SGMNM, land would be used under the E2 and E2A Build Alternatives, as shown in Figure 3.15-10 through Figure 3.15-12, and Figure 3.15-14, for construction, including grading activities, near Aliso Canyon Road and also BP and L Road. This is the same area described above under the E1 and the E1A Build Alternatives. No recreation resources would be affected by this construction. The E2 and E2A Build Alternatives include two adit options within the ANF, including the SGMNM. Adit Option E2-A1 would require a 36-acre construction staging area at the surface, and adit Option E2-A2 would require a 23-acre temporary construction staging area (see

existing conditions because this roadway and utility easement currently exist within the ANF, including the SGMNM.

Given the above, operations of the E1 and E1A Build Alternatives would not change the character of the ANF, including the SGMNM.

E2 and E2A Build Alternatives

The E2 and E2A Build Alternatives would include a bored tunnel through an approximately 16.6-mile section of the ANF, including the SGMNM. The tunnel would have a maximum depth of 2,670 feet. The E2 and E2A Build Alternatives' tunnel beneath the ANF would not result in operations impacts such as noise or vibration at the surface.

The permanent surface improvements described for the E1, and E1A Build Alternatives would be similar for the E2 and E2A Build Alternatives, with the exception of an additional permanent ventilation access structure that would be included in the design for the adit Option E2-A2. This ventilation structure would be on private in-holdings (i.e., private property not for recreational use) near existing roadways within the ANF, including the SGMNM. This land is not open to the public. Operations of this adit would require only periodic maintenance. Therefore, operations of the E2 and E2A Build Alternatives would not change the character of the ANF, including the SGMNM.

Mitigation Measures

No mitigation measures are required for this impact.

CEQA Conclusion

There would be a less-than-significant impact under all six Build Alternatives.

Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources.

All Six Build Alternatives

The use of the ANF, including the SGMNM, would not increase or decrease with operations of the Palmdale to Burbank Project Section. None of the Build Alternatives would increase access or otherwise draw new users to the vicinity of the ANF. The operations effects described in Impact PK#3 would not decrease the capacity of the ANF or change the environment in a way that would reduce the value or recreational function of this resource. Thus,



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Angeles National Forest including the San Gabriel Mountains National Monument Cont.	Figure 3.15-14). The adit would be located within private in-holdings (private property not for recreational use) near existing roadways within the ANF. This land is not open to the public. The total use of land under the E2 and E2A Build Alternatives would represent less than 0.01 percent of the ANF, including the SGMNM. Acquisition of the land described here would not prevent the ANF, including the SGMNM, from continuing to function as a national and regional recreation resource. Therefore, implementation of the E2 and E2A Build Alternatives would not substantially reduce the capacity, function, or value of this recreation resource. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under all six Build Alternatives.	operations would also not lead to physical deterioration of the ANF, or the SGMNM, because of increased or decreased use. **Refined SR14 and SR14A Build Alternatives** The Refined SR14 and SR14A Build Alternatives would include a bored tunnel through an approximately 12-mile section of the ANF, including the SGMNM. Construction of the bored tunnel through the ANF would require the use of adits. The Refined SR14 and SR14A Build Alternatives include one adit option within the ANF, including the SGMNM, boundary; however, the adit would be located within a private in-holding (private property not for recreational use) near existing roadways within the ANF. This land is not open to the public. **E1 and E1A Build Alternatives** The E1 and E1A Build Alternatives would include a bored tunnel through an approximately 16.5-mile section of the ANF, including the SGMNM. The E1 and E1A Build Alternatives include two adit options within the ANF, including the SGMNM. However, the adit options would be located within a private inholding (private property not for recreational use) near existing roadways within ANF, including the SGMNM. This land is not open to the public.
Angeles National Forest/San Gabriel Mountains National Monument Cont.	Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives During construction of the Refined SR14 and SR14A Build Alternatives, access to the temporary construction area within the ANF, including the SGMNM, would be restricted. However, the temporary impact areas would be located entirely within private inholdings and the Vulcan Mine, which is not open to the public and does not serve a recreational purpose. There is no existing public access to the Refined SR14 and SR14A Build Alternatives' construction areas within the ANF. Vehicular and pedestrian access to the ANF would be maintained from all existing access points during project construction. Closure of the ANF would not be required, and no detours are proposed. Therefore, construction of the Refined SR14 and SR14A Build Alternatives	E2 and E2A Build Alternatives The E2 and E2A Build Alternatives would include a bored tunnel through an approximately 16.6-mile section of the ANF, including the SGMNM. The E2 and E2A Build Alternatives include two adit options within the ANF, including the SGMNM. However, the adit would be located within a private in-holding (i.e., private property not for recreational use) near existing roadways within the ANF, including the SGMNM. This land is not open to the public. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Angeles National Forest/San Gabriel Mountains National Monument Cont.	would not temporarily create a barrier for access or inhibit use of ANF, including the SGMNM. Visitors to the ANF, including the SGMNM, would have unobstructed views of the construction activities taking place at the Refined SR14 and SR14A Build Alternative adits within the ANF. Temporary construction staging areas associated with adits would be visible, depending on the location and surrounding topography. Construction staging areas would introduce major visual changes to the immediate surroundings. However, these impacts would be temporary and disturbed areas would be restored after completion of construction. E1 and E1A Build Alternatives The temporary access, noise, vibration, air quality, and visual impacts described for the Refined SR14 and SR14A Build Alternatives would be similar for the E1 and E1A Build Alternatives, including unobstructed views of construction activities for ANF visitors. Because the parks, recreation, and open space resource RSA does not include areas where there are bored tunnels (see Section 3.15.4.1), there is one moderate/high hydrologic risk area within the RSA in the ANF, including the SGMNM, near Aliso Canyon Road. The Authority would commit to state-of-the-art design features and construction methods to avoid and minimize impacts to hydrologic resources, including the use of tunnel boring machines equipped with specific features designed to reduce or prevent inflows and grouting and tunnel lining approaches that have been proven effective at controlling water seepage. These features are described in more detail in HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7. To address impacts to surface water resources, the Authority will implement an Adaptive Management and Monitoring Plan includes monitoring protocols to allow for the detection of changes in groundwater conditions related to tunnel construction and to ensure timely implementation of remedial measures. The probability would be minimal to none that hydrologic resources would be affected in this	Operations impacts



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Angeles National Forest/San Gabriel Mountains National Monument Cont.	area. See Section 3.8, Hydrology and Water Resources, for a more detailed analysis that includes the entire tunnel construction RSA. E2 and E2A Build Alternatives The temporary access, noise, vibration, air quality, and visual impacts described for the Refined SR14 and SR14A Build Alternatives would be similar for the E2 and E2A Build Alternatives, including unobstructed views of construction activities for ANF visitors. There is one moderate/high hydrologic risk area within the RSA in the ANF, including the SGMNM, near Aliso Canyon Road. The Authority would commit to state-of-the-art design features and construction methods to avoid and minimize impacts on hydrologic resources, including the use of tunnel boring machines equipped with specific features designed to reduce or prevent inflows and grouting and tunnel lining approaches that have been proven effective at controlling water seepage. These features are described in more detail in HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7. To address impacts to surface water resources, the Authority will implement an Adaptive Management and Monitoring Plan includes monitoring protocols to allow for the detection of changes in groundwater conditions related to tunnel construction and to ensure timely implementation of remedial measures. The probability would be minimal to none that hydrologic resources would be affected in this area. See Section 3.8, Hydrology and Water Resources for a more detailed analysis that includes the entire tunnel construction RSA. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under all six Build Alternatives.	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Rim of the Valley Trail (Proposed Extension) (16) (Figure 3.15-14 and Figure 3.15-15)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives An approximately 330-foot segment of the proposed Rim of the Valley Trail extension would be used as a construction staging area under the Refined SR14 and SR14A Build Alternatives. However, the Refined SR14 and SR14A Build Alternatives would not result in permanent acquisitions of the proposed trail. See Impact PK#2. E1 and E1A Build Alternatives The Rim of the Valley Trail is outside the E1 and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives An approximately 400-foot segment of the proposed Rim of the Valley Trail extension would be used as a construction staging area under the E2 and E2A Build Alternatives. However, the E2 and E2A Build Alternatives would not result in permanent acquisitions of the proposed trail. See Impact PK#2.	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E2, and E2A Build Alternatives The Refined SR14, SR14A, E2, and E2A Build Alternatives each include a bored tunnel that would cross under the proposed Rim of the Valley Trail extension. The tunnel would have a depth of approximately 140 to 200 feet where it crosses under the proposed trail. Operations of tunnel beneath the proposed Rim of the Valley Trail extension would not result in operations impacts such as noise or vibration. No permanent surface improvements would occur in this area. Given the above, operations of the Refined SR14, SR14A, E2, and E2A Build Alternatives would not change the character of the proposed Rim of the Valley Trail extension. E1 and E1A Build Alternatives The Rim of the Valley Trail is outside the E1 and E1A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.
Rim of the Valley Trail (Proposed Extension) Cont.	Mitigation Measures The following mitigation measures would be implemented for the construction of the Refined SR14, SR14A, E2, and E2A Build Alternatives. PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement would be granted as deemed necessary. These mitigation measures will ensure that each resource acquired would be accessible during construction. If construction would result in a permanent loss, the Authority will provide necessary compensation. With the implementation of the standards required by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources.	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E2, and E2A Build Alternatives See Impact PK#3. Implementation of the Refined SR14, SR14A, E2, and E2A Build Alternatives would not increase access or otherwise draw new users to the vicinity of the proposed Rim of the Valley Trail extension. No permanent surface improvements would take place in this area. The use of the proposed Rim of the Valley Trail extension would not increase or decrease with implementation of the Refined SR14, SR14A, E2, and E2A Build Alternatives and would not lead to physical deterioration of the proposed trail extension. E1 and E1A Build Alternatives The Rim of the Valley Trail is outside the E1 and E1A Build Alternatives' RSAs.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Rim of the Valley Trail (Proposed Extension) Cont.	CEQA Conclusion There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PR-MM#9 under the Refined SR14, SR14A, E2, and E2A Build Alternatives. There would be no impact under the E1 and E1A Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives The Refined SR14 and SR14A Build Alternatives would require temporary construction staging areas that would directly conflict with the proposed Rim of the Valley Trail extension (see Impact PK#1) and would temporarily create a barrier for access or inhibit use of the trail. Construction associated with the Refined SR14 and SR14A Build Alternatives would temporarily increase dust and noise at the proposed Rim of the Valley Trail extension, which would inhibit use of the trail.	Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Rim of the Valley Trail (Proposed Extension) Cont.	However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including the proposed Rim of the Valley Trail extension (AQIAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the trail extension to continue to operate. Rim of the Valley Trail users would have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. If the proposed Rim of the Valley Trail extension is not operational at the time of project construction, there would be no temporary access, noise, vibration, air quality, or visual changes associated with the Refined SR14 and SR14A Build Alternatives The Rim of the Valley Trail is outside the E1 and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives The E2 and E2A Build Alternatives The E2 and E2A Build Alternatives would require temporary construction staging areas that would directly conflict with the proposed Rim of the Valley Trail extension (see Impact PK#1) and would temporarily create a barrier for access or inhibit use of the trail. The temporary impacts related to noise, dust, and visual changes during construction described for the Refined SR14 and SR14A Build Alternatives would be similar for the E2 and the E2A	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Rim of the Valley Trail (Proposed Extension) Cont.	If the proposed Rim of the Valley Trail extension is not operational at the time of project construction, there would be no temporary access, noise, vibration, air quality, or visual changes associated with the Refined SR14 and SR14A Build Alternatives.	
	Mitigation Measures	
	The following mitigation measures would be implemented for the construction of the Refined SR14, SR14A, E2, and E2A Build Alternatives. PR-MM#1 through PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to Rim of the Valley Trail would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land from park, recreation, and school play areas for temporary impact areas during the construction period. CEQA Conclusion There would be a less than significant impact with the implementation.	
	There would be a less-than-significant impact with the implementation of PR-MM#1 through PR-MM#5 under the Refined SR14, SR14A, E2, and E2A Build Alternatives. There would be no impact under the E1 and E1A Build Alternatives.	
Veterans Memorial	Impact PK#1: Acquisition of Parks, Recreation, and Open Space	Impact PK#3: Changes to Park Character.
Community Regional Park (17) (Figure 3.15-3 and Figure 3.15-12)	Resources. Refined SR14 and SR14A Build Alternatives	Refined SR14 and SR14A Build Alternatives
	No part of Veterans Memorial Community Regional Park would be in the temporary impact area for the Refined SR14 and SR14A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from Veterans Memorial Community Regional Park would take place.	The utility easement along Hubbard Street would have no associated physical improvements and would not present operations impacts that would change the character of the Veterans Memorial Community Regional Park Vehicular and pedestrian access to the park would be maintained from all existing access points. The Refined SR14 and SR14A Build Alternatives would not include surface improvements within 1,000 feet of the park, and the closest railway alignment would be in a bored tunnel. Operations of the Refined SR14 and SR14A Build Alternatives would not affect the existing character of the Veterans Memorial Community Regional Park.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Veterans Memorial Community Regional Park Cont.	Veterans Memorial Community Regional Park is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives The utility easement along Hubbard Street would have no associated physical improvements and would not present impacts on the Veterans Memorial Community Regional Park during construction. The Refined SR14 and SR14A Build Alternatives would not include surface improvements within 1,000 feet of the park. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. Because of the relative distance between the Veterans Memorial Community Regional Park and the HSR surface improvements, construction associated with the Refined SR14 and SR14A Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to the park. E1, E1A, E2, and E2A Build Alternatives Veterans Memorial Community Regional Park is outside the E1, E1A, E2, and E2A Build Alternatives No mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	Veterans Memorial Community Regional Park is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14 and SR14A Build Alternatives Because of its distance from the nearest HSR improvement, use of Veterans Memorial Community Regional Park would not increase or decrease or lead to physical deterioration with implementation of the Refined SR14 and SR14A Build Alternatives. E1, E1A, E2, and E2A Build Alternatives Veterans Memorial Community Regional Park is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



El Cariso Regional Park and Golf Course (18) (Figure 3.15-3 and Figure 3.15-12) Refined SR14 and SR14A Build Alternatives No part of El Cariso Regional Park and Golf Course would be included in the temporary impact area for the Refined SR14 and SR14A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from El Cariso Regional Park and Golf Course would take place. E1, E1A, E2, and E2A Build Alternatives El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives No mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#3: Changes to Park Character. Refined SR14 and SR14A Build Alternatives The utility easement along Hubbard Street would have no asso improvements and would not present operations impacts that vocharacter of El Cariso Regional Park and Golf Course. Vehicul access to the park would be maintained from all existing access to the park would be maintained from all existing access to the park would be maintained from all existing access to the park would be maintained from all existing access to the park would be in a bored tunnel. Operations of the Refined SR14 and SR14A Build Alternatives would not include improvements within 1,000 feet of the park, and the closest rail would be in a bored tunnel. Operations of the Refined SR14 and SR14A Build Alternatives would not affect the existing character of El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives El Cariso Regional P	
Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14 and SR14A Build Alternatives The utility easement along Hubbard Street would have no associated physical improvements and would not present impacts on El Cariso Regional Park and Golf Course during construction. The Refined SR14 and SR14A Build Alternatives would not include surface improvements within 1,000 feet of the park. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. Because of the relative distance between El Cariso Regional Park and Golf Course and the HSR surface improvements, construction associated with the Refined SR14 and SR14A Build Alternatives. E1, E1A, E2, and E2A Build Alternatives E1 Cariso Regional Park and Golf Course is outside the E1, Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Resources. Refined SR14 and SR14A Build Alternatives Because of its distance from the nearest HSR improvements Regional Park and Golf Course would not increase or decreated by social deterioration with implementation of the Refined SB Build Alternatives. E1, E1A, E2, and E2A Build Alternatives E1 Cariso Regional Park and Golf Course is outside the E1, Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	at would change the cular and pedestrian ress points. The ide surface railway alignment and SR14A Build iso Regional Park and 1, E1A, E2, and E2A and Recreation ent, use of El Cariso crease or lead to SR14 and SR14A



Resource Name and Map Identification	Construction Impacts	Operations Impacts
El Cariso Regional Park and Golf Course (18) Cont.	E1, E1A, E2, and E2A Build Alternatives El Cariso Regional Park and Golf Course is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	
Pacoima Wash Proposed Urban Greenway (19) (Figure 3.15-3 and Figure 3.15-14)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of proposed Pacoima Wash Proposed Urban Greenway extension would be included in the temporary impact area for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from the proposed Pacoima Wash Proposed Urban Greenway Extension would occur. E2, and E2A Build Alternatives The Pacoima Wash Proposed Urban Greenway is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The bored tunnel alignments closest to the proposed Pacoima Wash Proposed Urban Greenway extension would have no associated physical improvements and would not present operations impacts that would change the character of the proposed trail. E2, and E2A Build Alternatives The Pacoima Wash Proposed Urban Greenway is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives Because of its distance from the nearest HSR improvement, use of the proposed Pacoima Wash Proposed Urban Greenway extension would not



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Pacoima Wash Proposed Urban Greenway Cont.	Refined SR14, SR14A, E1, and E1A Build Alternatives The Refined SR14, SR14A, E1, and E1A Build Alternatives would not include surface improvements within 1,000 feet of the proposed Pacoima Wash Proposed Urban Greenway extension. Vehicular and pedestrian access to the trail would be maintained from all existing access points during project construction. Because of the relative distance between the proposed Pacoima Wash Proposed Urban Greenway extension and the HSR surface improvements, construction associated with the Refined SR14, SR14A, E1, and E1A Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to the trail. E2, and E2A Build Alternatives The Pacoima Wash Proposed Urban Greenway is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	increase or decrease or lead to physical deterioration with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives. E2, and E2A Build Alternatives The Pacoima Wash Proposed Urban Greenway is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.
Playgrounds at Hillery T. Broadous Elementary School (20) (Figure 3.15-3 and Figure 3.15-14)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of Hillery T. Broadous Elementary School would be included in the temporary impact areas for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this school. No permanent acquisition of property from Hillery T. Broadous Elementary School would take place. E2 and E2A Build Alternatives The Hillery T. Broadous Elementary School is outside the E2 and E2A Build Alternatives' RSAs.	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The bored tunnel alignments that would pass under the Hillery T. Broadous Elementary School would have no associated physical improvements and would not present operations impacts that would change the character of the school. The permanent improvements associated with the adjacent intermediate window option (SR14-W2 and E1-W2b) would consist of relatively small structures consistent with the surrounding urban environment and would not affect school operations or use of the outdoor play areas. E2 and E2A Build Alternatives The Hillery T. Broadous Elementary School is outside the E2 and E2A Build Alternatives' RSAs.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Hillery T. Broadous Elementary School Cont.	No mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives For the Refined SR14, SR14A, E1, and E1A Build Alternatives, construction associated with the adjacent intermediate windows (SR14-W2 and E1-W2b) could increase dust and noise at the Hillery T. Broadous Elementary School. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including this school (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the school to continue to operate with outdoor play areas. Users of the outdoor play areas could have partially obstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction.	No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The use of the Hillery T. Broadous Elementary School play areas would not increase or decrease or lead to the resource's physical deterioration with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives, given that the alignment would be in an underground tunnel. E2 and E2A Build Alternatives The Hillery T. Broadous Elementary School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Hillery T. Broadous Elementary School Cont.	E2 and E2A Build Alternatives The Hillery T. Broadous Elementary School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be no impact under the E2 and E2A Build Alternatives.	
HHH Memorial Recreation Center and Pool (21) (Figure 3.15-3 and Figure 3.15-16)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of HHH Memorial Recreation Center and Pool would be included in the temporary impact areas for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this school. No permanent acquisition of property from HHH Memorial Recreation Center and Pool would take place. E2 and E2A Build Alternatives HHH Memorial Recreation Center and Pool is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The bored tunnel alignments for the Refined SR14, SR14A, E1, and E1A Build Alternatives that would pass under the HHH Memorial Recreation Center and Pool would have no associated physical improvements and would not present operations impacts that would change the character of the park. The tunnels would be approximately 200 to 280 feet below the surface of a portion of the park property. The permanent improvements associated with the adjacent intermediate window option (SR14-W2 and E1-W2b) would consist of relatively small structures consistent with the surrounding urban environment and would not affect operations or use of the park. E2 and E2A Build Alternatives HHH Memorial Recreation Center and Pool is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
HHH Memorial Recreation Center and Pool Cont.	Refined SR14, SR14A, E1, and E1A Build Alternatives Construction associated with the adjacent window option (SR14-W2 and E1-W2b) for the Refined SR14, and E1 Build Alternatives could temporarily increase dust and noise at the HHH Memorial Recreation Center and Pool. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is being conducted within 1,000 feet of sensitive receivers, including this park (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the park to continue to operate. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. Users of the park would have partially obstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. E2 and E2A Build Alternatives HHH Memorial Recreation Center and Pool is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be no impact under the E2 and E2A Build Alternatives.	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The use of the HHH Memorial Recreation Center and Pool would not increase or decrease or lead to the resource's physical deterioration with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives, given that the alignments would be within an underground tunnel. E2 and E2A Build Alternatives HHH Memorial Recreation Center and Pool is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Charles Maclay Middle School (22) (Figure 3.15-4 and Figure 3.15-16)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of Charles Maclay Middle School would be included in the temporary impact area for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this school. No permanent acquisition of property from the Charles Maclay Middle School would take place. E2 and E2A Build Alternatives Charles Maclay Middle School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Refined SR14, SR14A, E1, and E1A Build Alternatives would not include surface improvements within 1,000 feet of Charles Maclay Middle School. Vehicular and pedestrian access to the school play areas would be maintained from all existing access points during project construction. Because of the relative distance between Charles Maclay Middle School and the HSR surface improvements, construction associated with the Refined SR14, SR14A, E1, and E1A Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to the outdoor play areas at this location.	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The bored tunnel alignments that would run underneath Charles Maclay Middle School would have no associated physical improvements and would not present operations impacts that would change the character of the school. The tunnel would have a depth of approximately 200 to 280 feet where it crosses below the school property. E2 and E2A Build Alternatives Charles Maclay Middle School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The use of Charles Maclay Middle School play areas would not increase or decrease or lead to the resource's physical deterioration with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives, given that the alignments would be within an underground tunnel. E2 and E2A Build Alternatives Charles Maclay Middle School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Charles Maclay Middle School Cont.	E2 and E2A Build Alternatives Charles Maclay Middle School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	
Roger W. Jessup Park (25) (Figure 3.15-4 and Figure 3.15-16)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of Roger W. Jessup Park would be included in the temporary impact area for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from Roger W. Jessup Park would take place. E2 and E2A Build Alternatives Roger W. Jessup Park is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Refined SR14, SR14A, E1, and E1A Build Alternatives would not include surface improvements within 1,000 feet of Roger W. Jessup Park. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. Because of the relative distance between Roger W. Jessup Park and the HSR surface improvements, construction	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The bored tunnel alignments that would run underneath Roger W. Jessup Park would have no associated physical improvements and would not present operations impacts that would change the character of the park. The tunnel would have a depth of approximately 200 to 280 feet where it crosses under Roger W. Jessup Park. E2 and E2A Build Alternatives Roger W. Jessup Park is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The use of Roger W. Jessup Park would not increase or decrease or lead to the resource's physical deterioration with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives, given that the alignment would be within an underground tunnel. E2 and E2A Build Alternatives Roger W. Jessup Park is outside the E2 and E2A Build Alternative RSA's. Mitigation Measures No mitigation measures are required for this impact.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Roger W. Jessup Park Cont.	associated with the Refined SR14 and E1 Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to the outdoor play areas at this location. E2 and E2A Build Alternatives	CEQA Conclusion There would be no impact under all six Build Alternatives.
	Roger W. Jessup Park is outside the E2 and E2A Build Alternatives' RSAs.	
	Mitigation Measures	
	No mitigation measures are required for this impact.	
	CEQA Conclusion	
	There would be no impact under all six Build Alternatives.	
Hansen Dam Open Space (23)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.	Impact PK#3: Changes to Park Character.
(Figure 3.15-4 and	Refined SR14, SR14A, E1, and E1A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives
Figure 3.15-15)	The Hansen Dam Open Space is outside the Refined SR14, SR14A,	The Hansen Dam Open Space is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives' RSAs.
	E1, and E1A Build Alternatives' RSAs.	E2 and E2A Build Alternatives
The E2 and E2A Build Alternatives would construct a viaduct within the Hansen Dam Open Space, including the placement of piers/footings. The total permanent acquisition area would be approximately 13 acres, approximately 1.6 percent of the entire open space acreage. Temporary construction easements and staging areas within the Hansen Dam Open Space would not extend beyond the permanent acquisition areas. **Mitigation Measures** The following mitigation measures would be implemented for the construction of the E2 and E2A Build Alternatives. PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement would be granted as deemed necessary. These mitigation measures will ensure that each	The E2 and E2A Build Alternatives would construct a viaduct within the Hansen Dam Open Space. The viaduct structure, vertical piers, and distant tunnel portals would be highly visible and would contrast with the existing visual setting. Patrons of the open space area would be highly sensitive to these visual changes, as the changes would impinge upon the natural harmony of the views in this area. The total area of the Hansen Dam Open Space is 813 acres, and the total permanent acquisition area for the E2 and E2A Build Alternatives would be approximately 13 acres. The resource would remain accessible in the long term, and users would be able to pass under the viaduct to move from one area of the open space to another. Noise from passing trains would be perceptible to patrons of the open space area. Given the above visual- and noise-related impacts related to operation of the viaduct within the Hansen Dam Open Space area, the E2 and E2A Build Alternatives would change the character of this recreation resource. However, these changes would not reduce the capacity or the value of the open space area to the surrounding communities. The current aquatic activities, equestrian facilities, hiking trails, and picnic areas would remain part of the Hansen Dam Open Space amenities with the implementation of	



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Hansen Dam Open Space Cont.	construction would result in a permanent loss, the Authority will provide necessary compensation. With the implementation of the minimum standards required by the Uniform Act, SOCIO-IAMF#2, and by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources. CEQA Conclusion There would be no impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#6, PR-MM#7, and PR-MM#9 under the E2 and E2A Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Hansen Dam Open Space is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives Construction of the E2 and E2A Build Alternatives' viaduct structure would require temporary closure of the Hansen Dam Open Space area in the immediate vicinity of the proposed railway alignment (see Impact PK#1; approximately 13 acres). Additionally, access to the open space area from Wentworth Street would be interrupted by construction activities adjacent to this resource where the E2 and E2A Build Alternatives would cross below the roadway. This effect would temporarily create a barrier for access or inhibit use of the Hansen Dam Open Space from this segment of Wentworth Street, which would be relocated and reconstructed as part of the E2 and E2A Build Alternatives. However, the remainder of this 813-acre open space resource would continue to be open and accessible to the public. Construction of the E2 and E2A Build Alternatives viaduct could temporarily increase dust and noise within the Hansen Dam Open Space. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and	the E2 and E2A Build Alternatives. Mitigation Measures The following mitigation measures would be implemented for the operations of the E2 and E2A Build Alternatives. PR-MM#8 will be employed to maintain accessibility to park facilities or to provide alternative access to ensure the park or recreation resources remain accessible. In accordance with PR-MM#8, the Authority will provide compensation for, or enhancement of, access driveways or parking areas at the recreation resource. CEQA Conclusion There would be no impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be a less-than-significant impact with the implementation of PR-MM#8 under the E2 and E2A Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Hansen Dam Open Space is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives The use of the Hansen Dam Open Space would not increase or decrease with implementation of the E2 and E2A Build Alternatives alignments would cross the eastern edge of the Hansen Dam Open Space, while the majority of open space amenities are on the western side. Additionally, only a small portion of the park would be affected by operations of the E2 and E2A Build Alternatives. The changes described under Impact PK#3 would not inhibit the desirability of the resource to the extent that use would decrease, nor would the changes lead to physical deterioration of the resource. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under the Refined SR14, SR14A, E1, and E1A



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Hansen Dam Open Space Cont.	Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including this open space area (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the park to continue to operate. Users of the Hansen Dam Open Space would have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. See Impact PK#3 for a description of visual impacts related to the placement of a permanent viaduct structure in this area. Mitigation Measures The following mitigation measures would be implemented for the construction of the E2 and E2A Build Alternatives. PR-MM#1 through PR-MM#5 will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to facilities would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land from park, recreation, and school play areas for temporary impact areas during the construction period. CEQA Conclusion There would be no impact under the Refined SR14, SR14A	Build Alternatives. There would be a less-than-significant impact for the E2 and E2A Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Hansen Dam Open Space Cont.	impact with the implementation of PR-MM#1, PR-MM#2, PR-MM#3, and PR-MM#5 under the E2 and E2A Build Alternatives.	
Tujunga Ponds Wildlife Sanctuary (24) (Figure 3.15-4 and Figure 3.15-15)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Tujunga Ponds Wildlife Sanctuary is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives No part of the Tujunga Ponds Wildlife Sanctuary would be in the temporary impact area for the E2 and E2A Build Alternative. No temporary construction easements would be required from this area. No permanent acquisition of property from the wildlife sanctuary would take place. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Tujunga Ponds Wildlife Sanctuary is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives The Closest physical HSR improvements to the Tujunga Ponds Wildlife Sanctuary would be the elevated viaduct 0.8 mile to the west. Because of the relative distance between the wildlife sanctuary and the HSR improvements, construction associated with the E2, and E2A Build Alternatives would not result in temporary noise, vibration, air quality, or visual changes to this resource. Vehicular and pedestrian access to the Tujunga Ponds Wildlife Sanctuary	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The Tujunga Ponds Wildlife Sanctuary is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives Vehicular and pedestrian access to the Tujunga Ponds Wildlife Sanctuary would be maintained from all existing access points. The closest physical HSR improvements to the Tujunga Ponds Wildlife Sanctuary would be 0.8 mile to the west. Because of the relative distance between the wildlife sanctuary and the HSR improvements, operations of the E2 and E2A Build Alternatives would not affect the existing character of the wildlife sanctuary. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Tujunga Ponds Wildlife Sanctuary is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives Given the distance from the elevated viaduct, use of the Tujunga Ponds Wildlife Sanctuary would not increase or decrease with implementation of the E2 and E2A Build Alternatives nor would the Build Alternatives lead to physical deterioration of the sanctuary. Mitigation Measures No mitigation measures are required for this impact.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Tujunga Ponds Wildlife Sanctuary Cont.	would be maintained from all existing access points during project construction. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	CEQA Conclusion There would be no impact under all six Build Alternatives.
Stonehurst Park and Recreation Center (26) (Figure 3.15-4 and Figure 3.15-15)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Stonehurst Park and Recreation Center is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives No part of Stonehurst Park would be in the temporary impact areas for the E2 and E2A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from Stonehurst Park would take place. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Stonehurst Park and Recreation Center is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives The use of the adjacent CalMat Mine site as a disposal site for spoils generated by the E2 and E2A Build Alternatives could temporarily increase dust and noise at Stonehurst Park. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The Stonehurst Park and Recreation Center is outside of the Refined SR14, SR14A, E1, and E1A Build Alternatives The bored tunnel alignments that would pass more than 1,000 feet from Stonehurst Park would have no associated physical improvements and would not present operations impacts that would change the character of the park. The permanent improvements associated with the adjacent intermediate window option (E2-W2) on the CalMat Mine site would consist of relatively small structures consistent with the surrounding urban environment and would not affect park operations. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under the Refined SR14 and SR14A Build Alternatives. There would be a less-than-significant impact under the E2 and E2A Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The Stonehurst Park and Recreation Center is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives The use of Stonehurst Park would not increase or decrease with



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Stonehurst Park and Recreation Center Cont.	Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs require preparation of a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for minimizing construction fugitive dust, noise, and vibration impacts. These measures will be applied when work is conducted within 1,000 feet of sensitive receivers, including this park (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the park to continue to operate. Users of Stonehurst Park would have partially obstructed views of construction activities that would be immediately adjacent to the park. Staging areas would introduce visually intrusive accumulations of stored material and equipment. However, spoils disposal would have the same character and context as the current activities at the CalMat Mine site and would be temporary. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. No visual changes to the immediate surroundings are anticipated. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under the Refined SR14 and SR14A Build Alternatives. There would be a less-than-significant impact under the E2 and E2A Build Alternatives.	implementation of the E2 and E2A Build Alternatives or lead to physical deterioration of the park. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at	Impact PK#1: Acquisition of Parks, Recreation, and Open Space	Impact PK#3: Changes to Park Character.
Stonehurst Avenue	Resources.	Refined SR14, SR14A, E1, and E1A Build Alternatives
Elementary School (27)	Refined SR14, SR14A, E1, and E1A Build Alternatives	The Stonehurst Avenue Elementary School is outside the Refined SR14,
(Figure 3.15-4 and	The Stonehurst Avenue Elementary School is outside the Refined	SR14A, E1, and E1A Build Alternatives' RSAs.
Figure 3.15-15)	SR14, SR14A, E1, and E1A Build Alternatives' RSAs.	E2 and E2A Build Alternatives
,	E2 and E2A Build Alternatives	The E2 and E2A Build Alternatives include a bored tunnel alignment that
	No part of Stonehurst Avenue Elementary School would be included in the temporary impact areas for the E2 and E2A Build Alternatives. No temporary construction easements would be required from this school. No permanent acquisition of property from Stonehurst	would pass underneath Stonehurst Avenue Elementary School approximately 280 feet below ground surface. The tunnel would have no associated surface improvements and would not present operations impacts that would change the character of the school.
	Avenue Elementary School would take place.	The permanent improvements associated with the adjacent intermediate
	Mitigation Measures	window option (E2-W2) on the CalMat Mine site would consist of relatively
	No mitigation measures are required for this impact.	small structures consistent with the surrounding urban environment and would not affect school operations.
	CEQA Conclusion	Mitigation Measures
	There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.	No mitigation measures are required for this impact.
		CEQA Conclusion
		There would be no impact under the Refined SR14 and SR14A Build
	Refined SR14, SR14A, E1, and E1A Build Alternatives	Alternatives. There would be a less-than-significant impact under the E2 and
		E2A Build Alternatives.
	The Stonehurst Avenue Elementary School is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives' RSAs.	Impact PK#4: Increased or Decreased Use of Parks and Recreation
	E2 and E2A Build Alternatives	Resources.
	The use of the CalMat Mine site as a disposal site for spoils	Refined SR14, SR14A, E1, and E1A Build Alternatives
	generated by the E2 and E2A Build Alternatives would temporarily increase dust and noise at Stonehurst Avenue Elementary School.	The Stonehurst Avenue Elementary School is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives' RSAs.
	However, IAMFs incorporated into the construction methods will	E2 and E2A Build Alternatives
	control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs	Use of the Stonehurst Avenue Elementary School outdoor play areas would not increase or decrease with implementation of the E2 and E2A Build Alternatives, nor would the Build Alternatives lead to physical deterioration o the school play areas, given that the alignments would be within an underground tunnel. Mitigation Measures
	will be applied when work is conducted within 1,000 feet of sensitive receivers, including this school (AQ-IAMF#1 and NV-IAMF#1).	No mitigation measures are required for this impact.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Stonehurst Avenue Elementary School Cont.	The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the outdoor play areas at this school to continue to operate. Vehicular and pedestrian access to the school would be maintained from all existing access points during project construction. Users of the Stonehurst Avenue Elementary School outdoor play areas do not have open views of the CalMat Mine site. No visual changes to the immediate surroundings are anticipated. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under the Refined SR14 and SR14A Build Alternatives. There would be a less-than-significant impact under the E2 and E2A Build Alternatives.	CEQA Conclusion There would be no impact under all six Build Alternatives.
Sun Valley Pool/Sun Valley Park and Recreation Center (28) (Figure 3.15-4 and Figure 3.15-16)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of Sun Valley Pool/Sun Valley Park and Recreation Center would be included in the temporary impact areas for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this park. No permanent acquisition of property from Sun Valley Pool/Sun Valley Park and Recreation Center would take place. E2 and E2A Build Alternatives The Sun Valley Pool/Sun Valley Park and Recreation Center is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives The tunnel alignments that would travel under San Fernando Road would have no associated physical improvements and would not present operations impacts that would change the character of Sun Valley Pool/Sun Valley Park and Recreation Center. The permanent roadway improvements at the intersection of Cantara Street and Vineland Avenue would be consistent with the surrounding urban environment and would not affect park operations. E2 and E2A Build Alternatives The Sun Valley Pool/Sun Valley Park and Recreation Center is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Sun Valley Pool/Sun Valley Park and Recreation Center Cont.	Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives Construction associated with the cut-and-cover tunnel railway alignment along San Fernando Road could temporarily increase dust and noise at the Sun Valley Pool/Sun Valley Park and Recreation Center. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including this park (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the park to continue to operate. Park users would have partially obstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. The roadway improvements at Cantara Street and Vineland Avenue would temporarily close this intersection; however, open access to the park from all bordering roadways would still be provided. E2 and E2A Build Alternatives The Sun Valley Pool/Sun Valley Park and Recreation Center is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact.	Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives The use of the Sun Valley Pool/Sun Valley Park and Recreation Center would not increase or decrease with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives, nor would the Build Alternatives lead to physical deterioration of the resource, given that the alignment would be within an underground tunnel. E2 and E2A Build Alternatives The Sun Valley Pool/Sun Valley Park and Recreation Center is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Sun Valley Pool/Sun Valley Park and Recreation Center Cont.	CEQA Conclusion There would be a less-than-significant impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be no impact under the E2 and E2A Build Alternatives.	
Playgrounds at Roscoe Elementary School (29) (Figure 3.15-4 and Figure 3.15-16)	Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives No part of Roscoe Elementary School would be included in the temporary impact areas for the Refined SR14, SR14A, E1, and E1A Build Alternatives. No temporary construction easements would be required from this school. No permanent acquisition of property from Roscoe Elementary School would take place. E2 and E2A Build Alternatives Roscoe Elementary School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives Construction associated with the cut-and-cover tunnel along San Fernando Road could temporarily increase dust and noise at the Roscoe Elementary School outdoor play areas. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration).	Impact PK#3: Changes to Park Character. Refined SR14, and SR14A, E1, and E1A Build Alternatives The tunnel alignments that would travel under San Fernando Road would have no associated physical improvements and would not present operations impacts that would change the character of Roscoe Elementary School. The permanent roadway improvements would be consistent with the surrounding urban environment and would not affect school operations. E2 and E2A Build Alternatives Roscoe Elementary School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives Use of the Roscoe Elementary School outdoor play areas would not increase or decrease with implementation of the Refined SR14, SR14A, E1, and E1A Build Alternatives, nor would the Build Alternatives lead to physical deterioration of the school play areas, given that the alignment would be within an underground tunnel. E2 and E2A Build Alternatives Roscoe Elementary School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Roscoe Elementary School Cont.	Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum documenting the pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive receivers, including this school (AQ-IAMF#1 and NV-IAMF#1). The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the school to continue to operate. Users of the outdoor play areas at Roscoe Elementary School could have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. The cut-and-cover tunnel alignment within San Fernando Road and the improvements at the San Fernando Road/Strathern Street/Clybourn Avenue intersection would result in temporary roadway and/or lane closures; however, access to the school would still be provided from White Street and the main entrance on Strathern Street. E2 and E2A Build Alternatives Roscoe Elementary School is outside the E2 and E2A Build Alternatives' RSAs. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be a less-than-significant impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be no impact under the E2 and E2A Build Alternatives.	CEQA Conclusion There would be no impact under all six Build Alternatives



Resource Name and Map Identification Construction Impacts	Operations Impacts
Playgrounds at Glenwood Elementary School (30) (Figure 3.15-4 and Figure 3.15-16) Elementary School is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives Glenwood Elementary School is outside the Refined SR14, SR14A, E1, and E1A Build Alternatives Refined SR14, SR14A, E1, and E1A Build Alternatives No part of Glenwood Elementary School would be included in the temporary impact areas for the E2 and E2A Build Alternatives. No temporary construction easements would be required from this school. No permanent acquisition of property from Glenwood Elementary School would take place. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives Glenwood Elementary School is outside the Refined SR14, SR14A, E1 and E1A Build Alternatives Construction associated with the cut-and-cover tunnel railway alignment along San Fernando Road could temporarily increase dust and noise at Glenwood Elementary School. However, IAMFs incorporated into the construction methods will control dust and noise during construction (see Section 3.3, Air Quality and Global Climate Change, and Section 3.4, Noise and Vibration). Prior to construction, the contractor will prepare a fugitive dust control plan and a noise and vibration technical memorandum regarding pertinent federal guidance for controlling construction fugitive dust, noise, and vibration effects. These IAMFs will be applied when work is conducted within 1,000 feet of sensitive	Impact PK#3: Changes to Park Character. Refined SR14, SR14A, E1, and E1A Build Alternatives Glenwood Elementary School is outside the Refined SR14, SR14A, E1 and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives The E2 and E2A Build Alternative tunnel alignments that would run under San Fernando Road would have no associated physical improvements and would not present operations impacts that would change the character of Glenwood Elementary School. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives. Impact PK#4: Increased or Decreased Use of Parks and Recreation Resources. Refined SR14, SR14A, E1, and E1A Build Alternatives Glenwood Elementary School is outside the Refined SR14, SR14A, E1 and E1A Build Alternatives' RSAs. E2 and E2A Build Alternatives Use of the Glenwood Elementary School outdoor play areas would not increase or decrease with implementation of the E2 and E2A Build Alternatives, nor would the Build Alternatives lead to physical deterioration of the school play areas, given that the alignment would be within an underground tunnel. Mitigation Measures No mitigation measures are required for this impact. CEQA Conclusion There would be no impact under all six Build Alternatives.



Resource Name and Map Identification	Construction Impacts	Operations Impacts
Playgrounds at Glenwood Elementary School Cont.	The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the outdoor play areas at Glenwood Elementary School to continue to operate.	
	Due to the relative distance to San Fernando Road and the intervening development, users of the school play areas would not have views of construction activities. Access to and from Glenwood Elementary School would not be affected.	
	Mitigation Measures	
	No mitigation measures are required for this impact.	
	CEQA Conclusion	
	There would be no impact under the Refined SR14, SR14A, E1, and E1A Build Alternatives. There would be a less-than-significant impact under the E2 and E2A Build Alternatives.	
Burbank Subsection		

There are no parks, recreation, or open space resources in the Burbank Subsection.

ANF = Angeles National Forest

Authority = California High-Speed Rail Authority

CEQA = California Environmental Quality Act

FRA = Federal Railroad Administration

FTA = Federal Transit Administration

HHH = Hubert H. Humphrey

HSR = high-speed rail

IAMF = impact avoidance and minimization feature

PCT = Pacific Crest Trail

RSA = resource study area

SGMNM = San Gabriel Mountains National Monument

SR = State Route

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

USFS = U.S. Forest Service



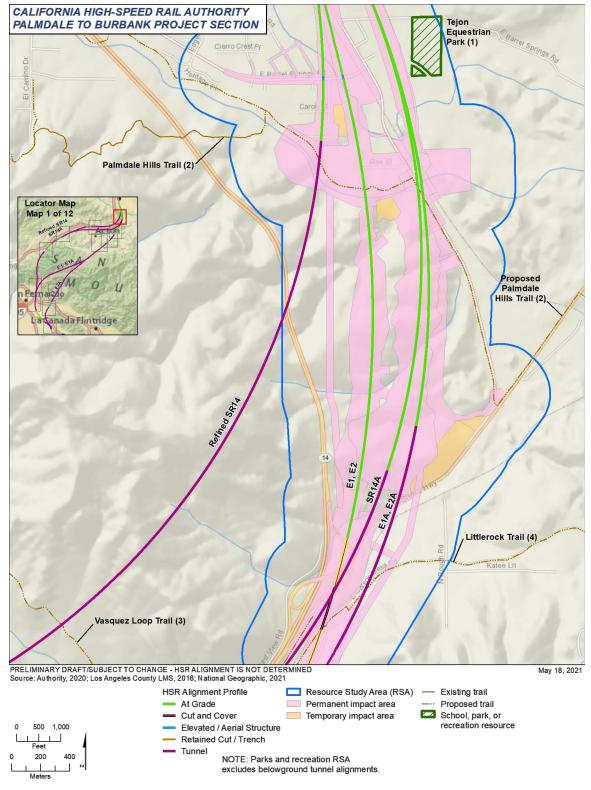


Figure 3.15-5 Parks, Recreation, and Open Space Resources within the Resource Study
Area (Map 1 of 12)



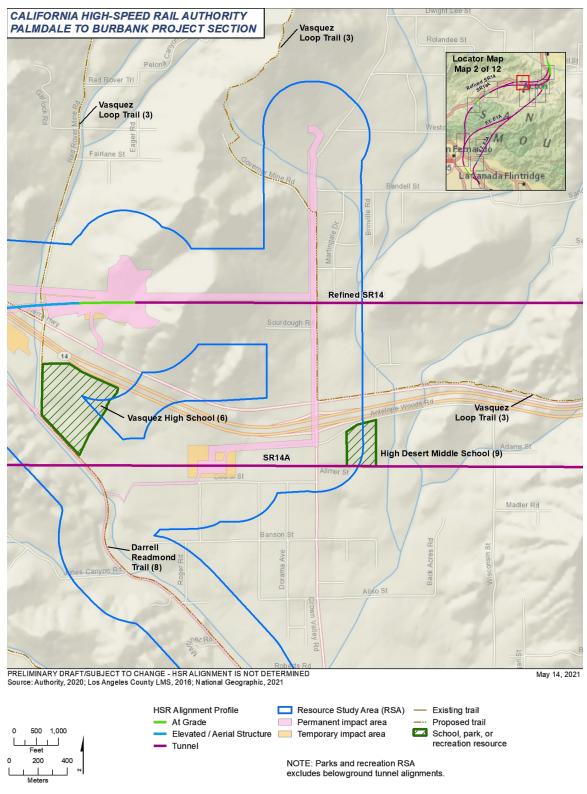


Figure 3.15-6 Parks, Recreation, and Open Space Resources within the Resource Study
Area (Map 2 of 12)



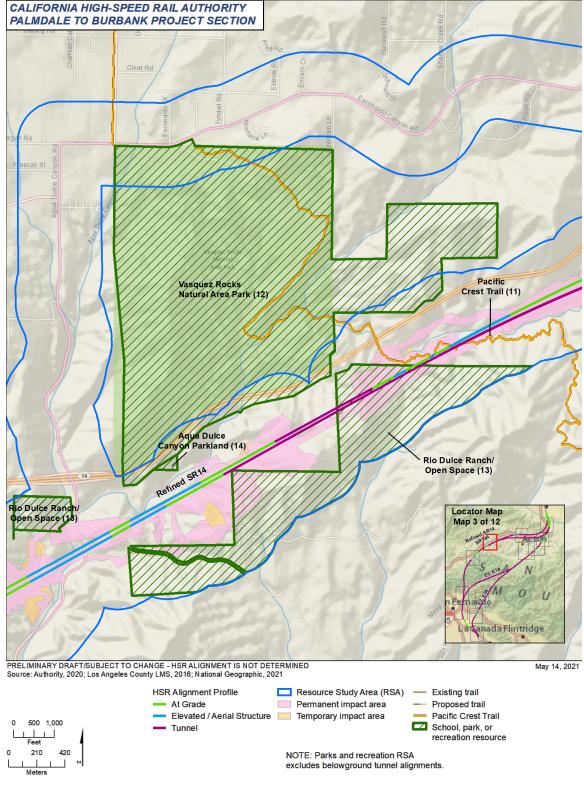


Figure 3.15-7 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 3 of 12)



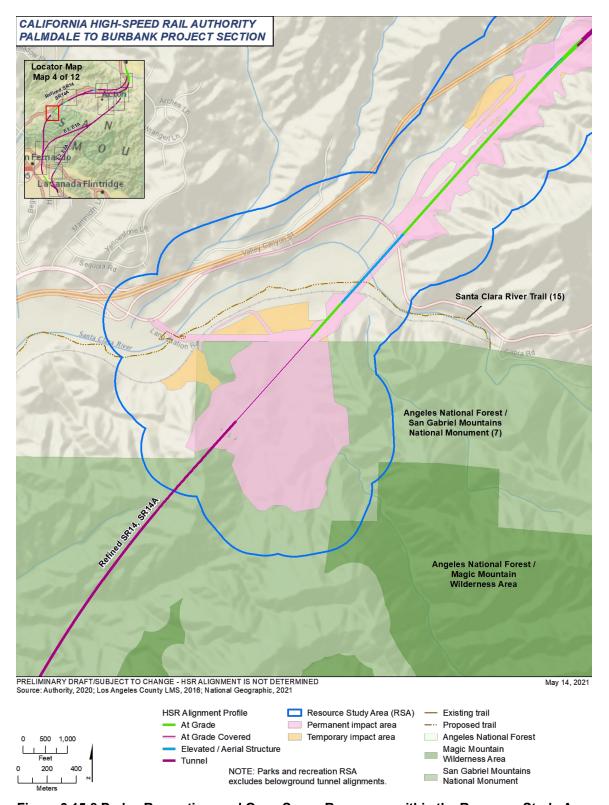


Figure 3.15-8 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 4 of 12)



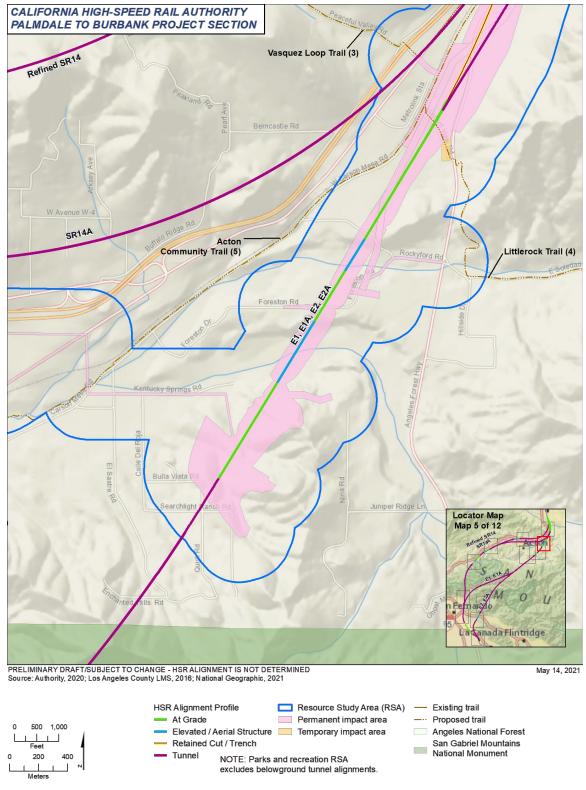


Figure 3.15-9 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 5 of 12)



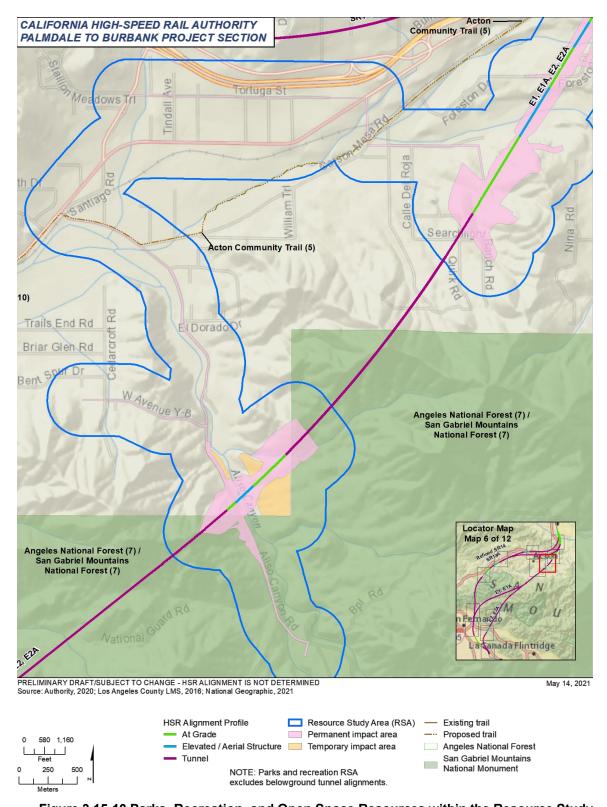


Figure 3.15-10 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 6 of 12)



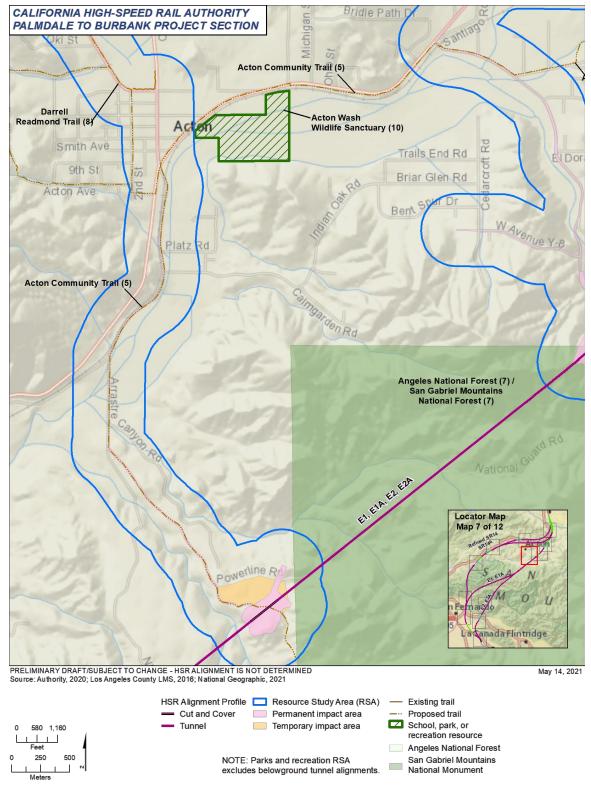


Figure 3.15-11 Parks, Recreation, and Open Space Resources within the Resource Study
Area (Map 7 of 12)



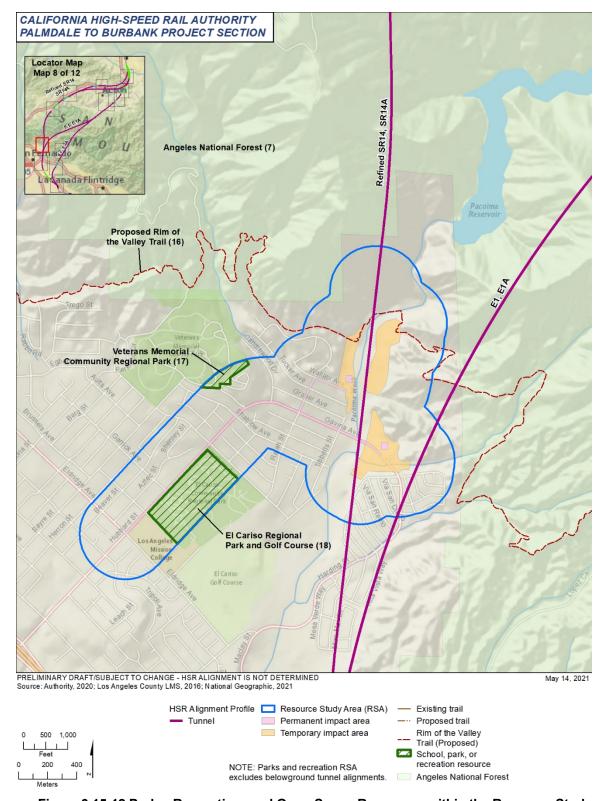


Figure 3.15-12 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 8 of 12)



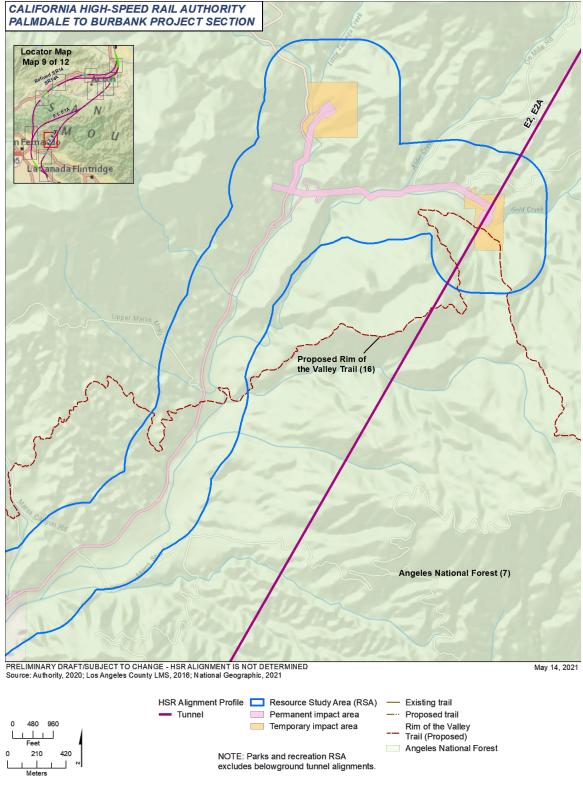


Figure 3.15-13 Parks, Recreation, and Open Space Resources within the Resource Study
Area (Map 9 of 12)



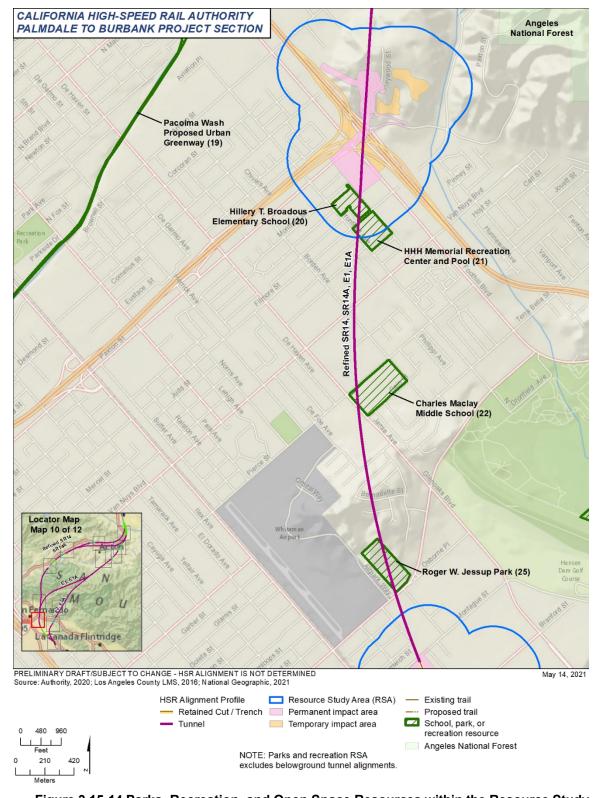


Figure 3.15-14 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 10 of 12)



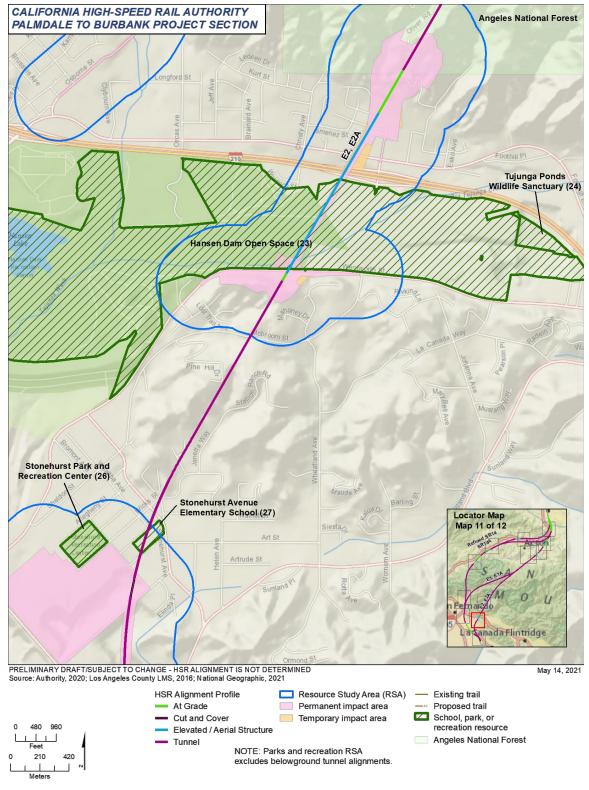


Figure 3.15-15 Parks, Recreation, and Open Space Resources within the Resource Study Area (Map 11 of 12)



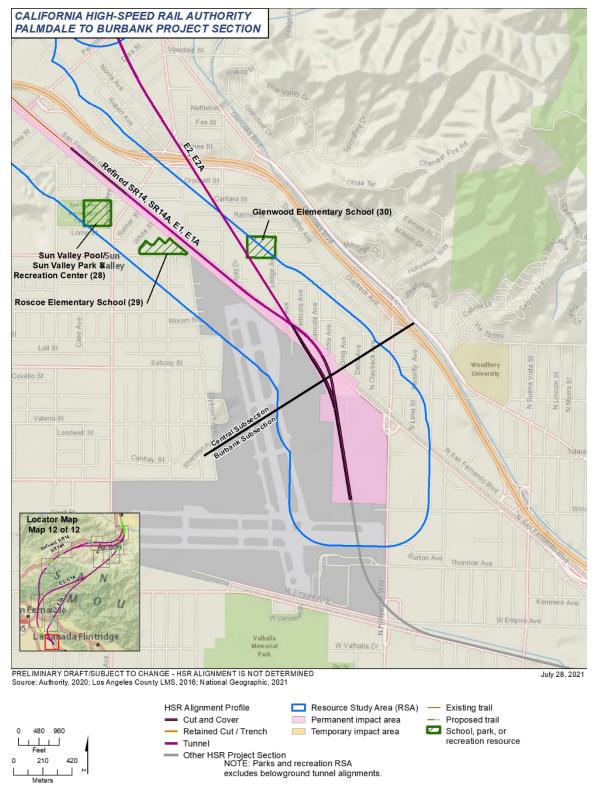


Figure 3.15-16 Parks, Recreation, and Open Space Resources within the Resource Study
Area (Map 12 of 12)



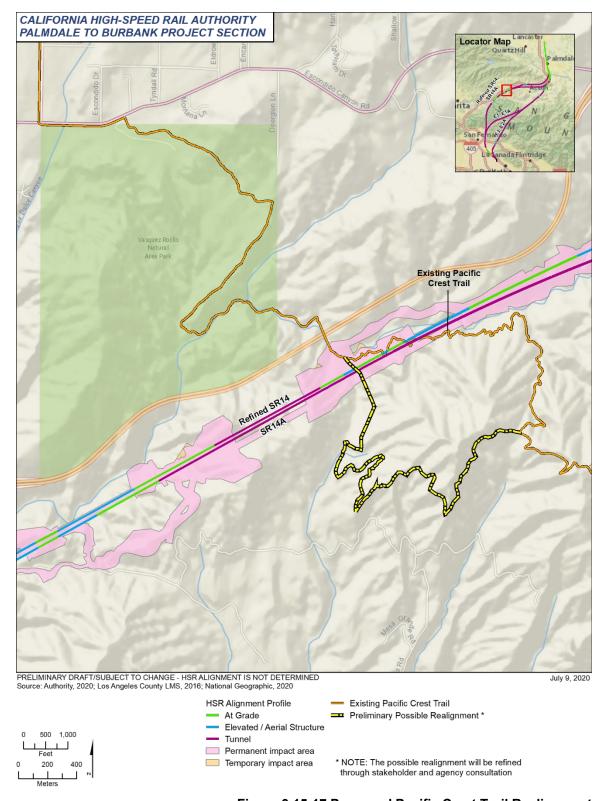


Figure 3.15-17 Proposed Pacific Crest Trail Realignment



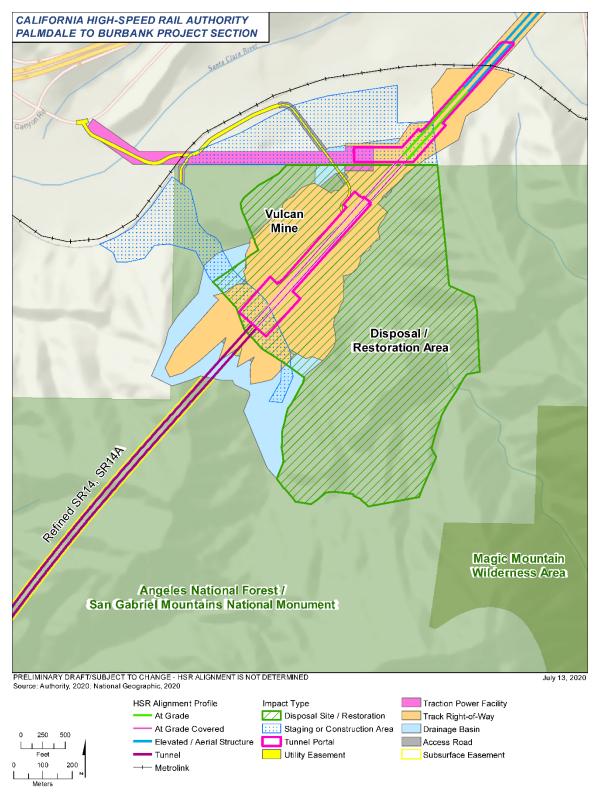


Figure 3.15-18 Refined SR14 and SR14A Build Alternative Improvements within the Angeles National Forest including San Gabriel Mountains National Monument (Vulcan Mine)



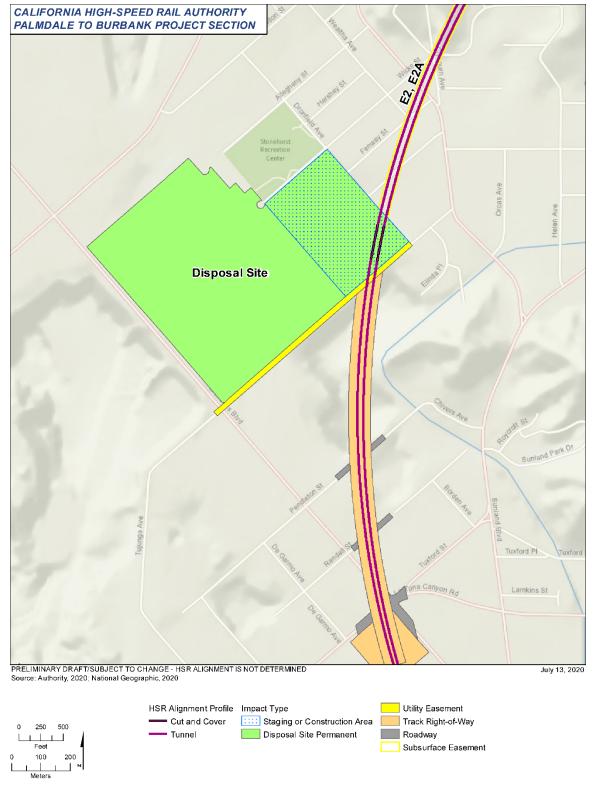


Figure 3.15-19 E2 and E2A Build Alternative Improvements (CalMat Mine)



Construction Impacts

Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.

Table 3.15-4 identifies the portions of the parks, recreation, and open space resources that would be needed in order to construct the Build Alternatives. Temporary construction easements of park, recreation, and open space resources are also included in this analysis.

As described in SOCIO-IAMF#2, the Authority will conduct all permanent acquisition of property for the HSR improvements, including federally funded improvements, in compliance with the Uniform Act, which is described in Section 3.15.2.1. The Uniform Act establishes minimum standards for federally funded programs and projects that require the acquisition of real property. The conditions of acquisition and compensation, replacement, or enhancement of other recreation resources acquired for the HSR improvements would be developed by the Authority in consultation with the owner/operator of each affected property.

The Authority will provide compensation or land, or both, for all permanent acquisitions of property for HSR improvements from publicly owned parks, consistent with the requirements of the California Park Preservation Act of 1971. The California Park Preservation Act requires that the compensation or land, or both, for the taking of the park land and facilities be equal to one of the following:

- The cost of acquiring substitute park land of comparable characteristics, substantially equal size, and condition
- Substitute park land of comparable characteristics, substantially equal size, and condition
- Any combination of substitute park land and compensation in an amount sufficient to provide substitute park land of comparable characteristics, substantially equal size, and condition

During the right-of-way acquisition process, the Authority will consult with the public agency having jurisdiction over the publicly owned park from which the Authority requires permanent acquisition of property. The Authority will work with the jurisdictional agency to establish the specific conditions of acquisition and compensation for, or replacement or enhancement of, other park property for the land that would be procured.

CEQA Conclusion

The acquisition of parks, recreation, and open space resources would result in a less-thansignificant impact for the following resources:

- Vasquez Loop Trail (Proposed Extension) (Refined SR14, SR14A, E1A, and E2A Build Alternatives)
- Pacific Crest Trail (Refined SR14 Build Alternative)
- ANF, including the SGMNM (all six Build Alternatives)

Direct acquisition, whether temporary or permanent, would reduce or diminish the capacity of a park or recreation resource to provide the features and attributes that are important to the surrounding communities, or would prevent the use of an established resource. Before the application of mitigation measures, this would result in a significant impact for the following resources:

- Palmdale Hills Trail (Proposed Extension) (all six Build Alternatives)
- Vasquez Loop Trail (Proposed Extension) (E1 and E2 Build Alternatives)
- Littlerock Trail (Proposed Extension) (Refined SR14, E1, and E2 Build Alternatives)
- Acton Community Trail (Proposed Extension) (E1, E1A, E2, and E2A Build Alternatives)
- Santa Clara River Trail (Proposed Extension) (Refined SR14 and SR14A Build Alternatives)



- Rim of the Valley Trail (Proposed Extension) (Refined SR14, SR14A, E2, and E2A Build Alternatives)
- Hansen Dam Open Space (Proposed Extension) (E2 and E2A Build Alternatives)

As discussed in Section 3.15.7, PR-MM#6 will return temporarily acquired land to the property owners after construction. PR-MM#7 and PR-MM#9 will require the Authority to consult with property owners and public agencies for the acquisition or easement of private and public lands. Compensation, replacement, or enhancement will be granted as deemed necessary. These mitigation measures will ensure that each resource acquired would be accessible during construction. If construction would result in a permanent loss, the Authority will provide necessary compensation. With the implementation of the standards required by SOCIO-IAMF#2 and by PR-MM#6, PR-MM#7, and PR-MM#9, there would be no net loss of park, recreation, or open space resources and this impact would be less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives.

Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.

Chapter 2, Alternatives, describes the duration of temporary construction activities. These activities would include pile driving, partial or total road and lane closures, detours (vehicular and pedestrian), partial/limited vehicle access on nearby roads, materials and equipment deliveries, and the potential establishment of one or more concrete batch plants where concrete would be prepared for use in construction. Most of the staging sites would be adjacent to the proposed project alignment in areas that are generally rural or industrial in nature. Equipment and earthmoving activities would not be visually intrusive in these types of settings. In urban areas, staging areas would be largest at the Burbank Airport Station.

For the purposes of identifying non-physical impacts, this temporary construction analysis focuses on parks, recreation, and open space resources within the RSA (i.e., within 1,000 feet from the edge of the Build Alternative footprint, which consists of alignments and ancillary facilities). The distance of 1,000 feet was chosen because it would be consistent with the screening distances used to determine impacts resulting from air quality, noise and vibration, and visual impacts (see Section 3.3, Air Quality and Global Climate Changes; Section 3.4, Noise and Vibration; and Section 3.16, Aesthetics and Visual Quality). In cases where a resource is beyond 1,000 feet from an alignment or ancillary facility, it is unlikely that construction would result in these impacts; therefore, such resources are not described further.⁵

Table 3.15-4 identifies the parks, recreation, and open space resources that would be affected by project-related temporary construction activities. Refer to Impact PK#1 for a description of physical impacts related to temporary construction easements.

Construction of the Build Alternatives would result in access, noise, vibration, air quality, and visual changes that could create a physical or perceived barrier to recreation resources, and/or increase the use of other existing recreational facilities. The following IAMFs (discussed in their respective resource chapters and in Appendix 2-E, Project Impact Avoidance and Minimizations Features Analysis) would reduce construction effects:

- TR-IAMF#2: Construction Transportation Plan—Implement a traffic management plan for use during construction.
- AQ-IAMF#1: Fugitive Dust Emissions: Minimize and control fugitive dust emissions.
- HYD-IAMF#3: Prepare and Implement a Construction Stormwater Pollution Prevention
 Plan—Develop Stormwater Pollution Prevention Plan to minimize potential short-term
 increases in sediment transport caused by construction.

⁵ Tujunga Ponds Wildlife Sanctuary is included in this analysis (outside of the 1,000-foot RSA) because it is considered exceptionally sensitive to noise or visual impacts.



 NV-IAMF#1: Noise and Vibration—Develop methodology to minimize construction noise and vibration impacts would be employed when work is being conducted within 1,000 feet of sensitive receptors.

CEQA Conclusion

With incorporation of the IAMFs listed above, construction-related access, noise, vibration, air quality, and visual changes to parks, recreation, and open space resources would result in a in a less than significant impact for the following resources:

- Vasquez Loop Trail (Proposed Extension) (Refined SR14, SR14A, E1A, and E2A Build Alternatives)
- Littlerock Trail (Proposed Extension) (all six Build Alternatives)
- Darrel Readmond Trail (Proposed Extension) (Refined SR14 and SR14A Build Alternatives)
- ANF, including the SGMNM (all six Build Alternatives)
- Playgrounds at Hillery T. Broadous Elementary School (Refined SR14, SR14A, E1, and E1A Build Alternatives)
- HHH Memorial Recreation Center and Pool (Refined SR14, SR14A, E1, and E1A Build Alternatives)
- Stonehurst Park and Recreation Center (E2 and E2A Build Alternatives)
- Playgrounds at Stonehurst Avenue Elementary School (E2 and E2A Build Alternatives)
- Sun Valley Pool/Sun Valley Park and Recreation Center (Refined SR14, SR14A, E1, and E1A Build Alternatives)
- Playgrounds at Roscoe Elementary School (Refined SR14, SR14A, E1, and E1A Build Alternatives)
- Playgrounds at Glenwood Elementary School (Refined SR14, SR14A, E1, and E1A Build Alternatives)

Project construction could prevent the use of a park, recreation, or open space resource even with the incorporation of the IAMFs listed above. Before the application of mitigation measures, this would result in a significant impact for the following resources:

- Tejon Equestrian Park (SR14A, E1A, and E2A Build Alternatives)
- Palmdale Hills Trail (Proposed Extension) (all six Build Alternatives)
- Vasquez Loop Trail (Proposed Extension) (E1 and E2 Build Alternatives)
- Acton Community Trail (Proposed Extension) (E1, E1A, E2, and E2A Build Alternatives)
- Pacific Crest Trail (Refined SR14 Build Alternative)
- Santa Clara River Trail (Proposed Extension) (Refined SR14 and SR14A Build Alternatives)
- Rim of the Valley Trail (Proposed Extension) (Refined SR14, SR14A, E2, and E2A Build Alternatives)
- Hansen Dam Open Space (Proposed Extension) (E2 and E2A Build Alternatives)

PR-MM#1 through PR-MM#5 (discussed in Section 3.15.7) will be employed to reduce the effects of construction-related access, noise, vibration, air quality, and visual changes. PR-MM#1 and PR-MM#2 will ensure that access to facilities would remain unaffected by construction activities by providing alternative access routes to temporarily restricted park facilities and by ensuring that connectivity would remain after construction. PR-MM#3 will implement standard safety measures for detours, signage, and post-construction access. PR-MM#4 will set conditions for the temporary closure and/or detouring of existing trails. PR-MM#5 will set conditions to use land



from park, recreation, and school play areas for temporary impact areas during the construction period. Through the implementation of the mitigation measures listed above, this impact would be less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives for each of the affected resources.

Operations Impacts

Impact PK#3: Changes to Park, Recreation, and Open Space Resource Character.

Operations impacts on parks, recreation, and open space resources would include permanent increases in noise and vibration, and changes in visual quality. Operations of the HSR system would introduce transportation noise to remote areas, which could affect the enjoyment of passive recreational activities in open space areas. Vibration impacts from operations of the HSR system could also occur, depending on the proximity of the resource to the alignments. Aboveground sections of the alignments would also affect the scenic vistas available to patrons of the recreation resources. Aboveground sections of the Build Alternative alignment would also create a physical barrier through recreation resources, such as trail crossings, which would disturb the continuity of the resource.

Table 3.15-4 identifies the parks, recreation, and open space resources that would be affected by the operation of the Build Alternatives and identifies mitigations measures for the resources that would be significantly impacted. Further discussions of these operations impacts are contained in Section 3.4, Noise, and Section 3.16, Aesthetics and Visual Quality.

CEQA Conclusion

Changes to parks, recreation, and open space resources character during operations would result in a in a less than significant impact for the following resources:

- Vasquez Loop Trail (Proposed Extension) (Refined SR14, SR14A, E1A, and E2A Build Alternatives)
- Littlerock Trail (Proposed Extension) (all six Build Alternatives)
- Darrell Readmond Trail (Proposed Extension) (Refined SR14 Build Alternative)
- Pacific Crest Trail (Refined SR14 Build Alternative)
- Santa Clara River Trail (Proposed Extension) (Refined SR14 and SR14A Build Alternatives)
- ANF, including the SGMNM (all six Build Alternatives)
- Stonehurst Park and Recreation Center (E2 and E2A Build Alternatives)
- Playgrounds at Stonehurst Avenue Elementary School (E2 and E2A Build Alternatives)

Operations of the Build Alternatives would alter park character by preventing the use of a recreation resource and/or by creating a physical or perceived barrier. This represents a significant impact for the following resources:

- Tejon Equestrian Park (SR14A, E1A, and E2A Build Alternatives)
- Palmdale Hills Trail (Proposed Extension) (all six Build Alternatives)
- Vasquez Loop Trail (Proposed Extension) (E1 and E2 Build Alternatives)
- Acton Community Trail (Proposed Extension) (E1, E1A, E2, and E2A Build Alternatives)
- Hansen Dam Open Space (E2 and E2A Build Alternatives)

As discussed in Section 3.15.7, PR-MM#8, Permanent Changes to Access to Parks, Recreation Resources, and/or Trails, will be employed to maintain accessibility to park facilities or to provide alternative access to ensure the park or recreation resources remain accessible. In accordance with PR-MM#8, the Authority will provide compensation for, or enhancement of, access driveways or parking areas at the recreation resource. Impacts related to noise, air quality, and aesthetics would be minimized through the implementation of applicable IAMFs and mitigation measures as discussed in those respective resource sections. With implementation of PR-MM#8, this impact



would be less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives for each of the affected resources.

Impact PK#4: Increased or Decreased Use of Parks, Recreation, and Open Space Resources.

Operations of the Build Alternatives would promote intercity travel and increase access to the Palmdale and Burbank areas. Indirectly, the Palmdale to Burbank Project Section would increase population in Los Angeles County by about 0.01 percent beyond planned growth (see Section 3.18, Regional Growth, for a detailed description of population growth estimates).

Permanent changes due to project construction would also change the accessibility, and therefore the use, of existing parks and recreational facilities within the Palmdale to Burbank Project Section during project operations. These changes would be noise and vibration from passing trains, the visual presence of the Build Alternative alignments, or the creation of a physical barrier restricting access to or through a resource. Substantial increased or decreased use of existing recreational facilities may lead to substantial physical deterioration if maintenance schedules are affected. Table 3.15-4 identifies the parks, recreation, and open space resources that would experience increased or decreased use through operation of the Build Alternatives. A technical memorandum would be prepared prior to construction to identify project design features that would minimize impacts on affected resources. These features may include safe and attractive access for present travel modes to ensure ease of use (PK-IAMF#1).

CEQA Conclusion

Increased or decreased use during operations would result in a less than significant impact for the following parks, recreation, and open space resources:

- Vasquez Loop Trail (Proposed Extension) (E1 and E2 Build Alternatives)
- Littlerock Trail (Proposed Extension) (all six Build Alternatives)
- Hansen Dam Open Space (E2 and E2A Build Alternatives)

Operation of the Build Alternatives would increase use of existing parks and recreation resources, which would result in or accelerate substantial physical deterioration. This would result in a significant impact on the Acton Community Trail (Proposed Extension) for the E1, E1A, E2, and E2A Build Alternatives. The Palmdale to Burbank Project Section would affect access to the proposed extension of Acton Community Trail, which could potentially lead to altered use and maintenance schedules. PR-MM#8 (discussed in Section 3.15.7) will require the Authority to consult with the recreational facility property owners regarding changes to and compensation for the replacement of access facilities at the recreation resource. The Authority will ensure that connections to the facilities would be maintained and that project improvements would not result in physical deterioration of the resource. Implementation of PR-MM#8 would reduce this impact to a less-than-significant level for the E1, E1A, E2, and E2A Build Alternatives for the Action Community Trail (Proposed Extension).

3.15.7 Mitigation Measures

The mitigation measures described in this section address the effects of construction and operations of the six Build Alternatives on park, recreation, and school play area resources. In addition to the mitigation measures described below, other sections of this Draft EIR/EIS provide mitigation measures that would reduce effects on park, recreation, and school play area resources, as follows:

- Section 3.2, Transportation, describes mitigation measures related to transportation and access.
- Section 3.3, Air Quality and Global Climate Change, describes measures addressing construction dust effects.
- Section 3.4, Noise and Vibration, describes measures addressing noise effects.
- Section 3.11, Safety and Security, describes measures addressing security fencing.



Section 3.16, Aesthetics and Visual Quality, describes measures addressing visual effects.

PR-MM#1: Temporary Restricted Access to Park Facilities during Construction

Prior to construction (ground-disturbing activities affecting trails), the contractor will prepare a technical memorandum documenting how connections to the unaffected trail portions and nearby roadways would be maintained during construction. The contractor will provide alternative access via a temporary detour of the trail using existing roadways or other public rights-of-way. The contractor will provide detour signage and lighting and will provide that the alternative routes meet public safety requirements. The technical memorandum will be submitted to the Authority for review and approval.

PR-MM#2: Providing Park Access

Prior to construction (ground-disturbing activities affecting park access) the contractor shall prepare a technical memorandum documenting how the contractor will ensure that connections to the unaffected park portions or nearby roadways are maintained after construction. If a proposed linear park closure restricts connectivity, the contractor will provide permanent multimodal access using existing roadways or other public rights of way. The technical memorandum shall be submitted to the Authority for review and approval.

PR-MM#3: Implement Standard Safety Measures

During construction, contractors will follow standard safety procedures to protect motorized and non-motorized traffic and maintain access to and from recreation resources. The following features would be provided, where feasible:

- Minimize closures to 3 days or less
- Coordinate construction noticing and detours with park operations and surrounding community where applicable (see also TRA-MM#C-1 and S&S-IAMF#1)
- Provide detour signage and lighting to ensure that detour routes meet all public safety requirements (see also TRA-MM#C-1 and S&S-IAMF#1)
- Install brightly colored fencing
- Install signage indicating closures and construction areas (see also TRA-MM#C-1 and S&S-IAMF#1)
- Use overhead safety coverings or screens
- Provide safe detours of pedestrian and motorized traffic around construction areas
- If a proposed park closure restricts connectivity, provide alternative pedestrian and bicycle access via existing roadways or other public rights-of-way
- Maintain interrupted trail connectivity and park access over or around the HSR system when the Palmdale to Burbank Project Section is completed

PR-MM#4: Develop and Implement a Trail Facilities Plan

- Trail Facilities Plan—During final design, the Authority's project engineer will require the
 design-build contractor to develop a trail facilities plan addressing the short-term project
 impacts on existing trails within the construction limits of the Palmdale to Burbank Project
 Section. That plan would address:
 - Identifying trails that would be closed temporarily and detoured during construction
 - Preparing a public awareness and notification plan
 - Temporarily closing portions of the following trails if the proposed extensions are operational at the time of project construction:
 - Palmdale Hills Trail (Proposed Extension)



- Littlerock Trail (Proposed Extension)
- Acton Community Trail (Proposed Extension)
- Darrell Readmond Trail (Proposed Extension)
- Santa Clara River Trail (Proposed Extension)
- Rim of the Valley Trail (Proposed Extension)
- Developing and implementing detours for temporarily closed portions of trails
- Phasing of temporary trail closures to allow for effective detours to maintain connectivity of these facilities around the construction areas
- Coordinating trail closures and detours with local jurisdictions having authority over those facilities
- Establishing criteria for identifying detour routes and facilities
- Providing informational signage for closures and detours
- Requiring compliance with Americans with Disabilities Act access during construction
- Maintaining signage for closures and detours throughout the closure period and replacing lost or damaged signage
- Restoring trails to their original or better condition at the completion of project construction
- Temporary Closures of Trails—Prior to temporary closures of trails, the Authority's project engineer will require the design-build contractor to coordinate with the directors of the appropriate jurisdictions' public works and/or parks departments, or their representatives, to review the location of and need for each temporary trail closure. The Authority's project engineer will require the design-build contractor to develop detours for each closure in consultation with the public works and/or parks department directors or their representatives. Prior to and during construction activities that will require the temporary closure of a trail, the Authority's project engineer will require the design-build contractor to comply with and implement the procedures in the trail facilities plan, described above, for the affected trails.
- Signage for Trail Detours and Closures—The Authority's project engineer will require the design-build contractor to develop detour signs, in consultation with the appropriate jurisdiction's public works and/or parks departments, notifying trail and bike lane users of the upcoming temporary facility closure and directing trail users to the temporary detour routes with estimated timeframes. Appropriate directional and informational signage will be provided by the Palmdale to Burbank Project Section design-build contractor prior to each closure and in a location to ensure that trail users would not have to backtrack to get to the detour routes.
- Contact Information at Trail Detours—The Authority's project engineer will require the
 design-build contractor to provide detour signage that includes contact information for the
 Authority's project engineer and the design-build contractor, and that informs trail users to
 contact the Authority's project engineer and/or the design-build contractor with questions or
 concerns regarding upcoming or active temporary trail closures.
- Restoration of Impacted Trail Segments—The Authority's project engineer will require the
 design-build contractor to return trail segments closed temporarily during construction to their
 original, or better, condition after completion of construction, prior to their return to the control
 of the applicable public works or parks department. After project construction, the Authority's
 project engineer will require the design-build contractor to document that access to and
 connectivity of the affected trails was restored.



• Compliance with the Trails Facilities Plan—Compliance with the trails' facilities plan will be documented in the environmental commitments record with text, photographs, maps, and correspondence, as appropriate.

PR-MM#5: Modifications to Recreational Uses

In the event a temporary impact area requires the temporary use of land at a park, recreation resource, or school play area that is used for recreation purposes, the Authority's project engineer will consult with the property owner/operator on two components: (1) whether the property owner/operator wants those recreation uses replaced temporarily or permanently elsewhere on the property; and (2) if temporary or permanent replacement of those recreation uses is desired, on modifications that could be made to the remaining recreation area on the property to temporarily or permanently replace the recreation uses displaced by the temporary impact area. Modifications to recreation areas outside the limits of a temporary impact area will be implemented prior to fencing and use of the temporary impact area.

PR-MM#6: Return of Land Used by Temporary Impact Areas to the Property Owners

The Authority's project engineer will require the design-build contractor to return the land used for each temporary impact area to the owner in its original or better condition when construction in an area has been completed and the temporary impact area is no longer needed. The Authority's project engineer will require the design-build contractor to coordinate the restoration of the affected land with the property owner and the project engineer.

PR-MM#7: Permanent Easement from Parks. Recreation Resources. and/or Trails

If a permanent easement (for the facility and facility maintenance access) is required across a park, recreation resource, and/or trail, the Authority will compensate for the loss of the park, recreation resource, and/or trail in accordance with the Uniform Act and the California Park Preservation Act. The California Park Preservation Act requires that the compensation or land, or both, for the taking of the park land and facilities be equal to one of the following:

- The cost of acquiring substitute park land of comparable characteristics, substantially equal size, and condition
- Substitute park land of comparable characteristics, substantially equal size, and condition
- Any combination of substitute park land and compensation in an amount sufficient to provide substitute park land of comparable characteristics, substantially equal size, and condition

The Authority will consult with the property owner from whom the Authority requires that permanent easement of property regarding the specific conditions of acquisition, use of, and compensation for, or replacement or enhancement of, the park or recreation resource within the easement area.

PR-MM#8: Permanent Changes to Access to Parks, Recreation Resources, and/or Trails

If permanent changes to vehicular, bicycle, or pedestrian access to a park or recreation resource are required, the Authority will ensure that connections to the unaffected park portions or nearby roadways will be maintained. If a proposed closure restricts connectivity to a park or recreation resource, the Authority will provide alternative access to ensure the park or recreation resource remains accessible. The Authority will consult with the property owner regarding the specific conditions of the changes to access and compensation for, or replacement or enhancement of, the access driveways or parking areas at the recreation resource.

PR-MM#9: Permanent Acquisition of Public Property from Land and/or Trails Planned for Public Recreational Use

For planned recreation resources, final design of the HSR Build Alternatives will continue minimize right-of-way impacts at planned parks, bike paths, and recreation resources. The Authority will continue work with the relevant jurisdictions on the establishment of appropriate compensation and relocation/realignment of a resource or additional property to accommodate



the displaced planned park and recreational uses as a result the HSR system. Mitigation may include preparing a plan for designing planned recreation uses to be consistent with the HSR facility, or compensation for the loss of the land in accordance with PR-MM #7, to ensure that there would be no net loss of park, recreation, or open space resources.

3.15.7.1 Impacts from Implementing Mitigation Measures

Implementation of the above-mentioned mitigation measures would result in impacts on the physical environment, including the following:

- PR-MM#1—Implementation of PR-MM#1 will include preparation of a plan to maintain access to recreation resources outside of temporary construction areas, which may include detours. Detours will be planned on existing roadways and will not require new construction. This measure would result in detours outside areas identified as temporary or permanent impact areas for the Build Alternatives. The precise details of detour routes are not known at this time, but depending on local conditions, they could induce temporary transportation or local air quality effects. Any such effects are expected to be minimal and not significant.
- PR-MM#2—The impacts of PR-MM#2 would be similar to those of PR-MM#1.
- **PR-MM#3**—Implementation of PR-MM#3 prescribes standard safety measures to be incorporated into the construction phase of the Palmdale to Burbank Project Section. These activities would not result in secondary or offsite environmental impacts.
- PR-MM#4—Implementation of PR-MM#4 sets conditions for the temporary closure and/or detouring of existing trails and bicycle lanes. The actions detailed in this measure would result in detours outside areas identified as temporary or permanent impact areas for the Build Alternatives. Temporary detours will include identification of alternative travel routes on other available routes, signing, and other activities to inform the traveling public of the detours. The details of detour routes are not known at this time, but depending on local conditions, they could induce temporary transportation or local air quality impacts. Any such effects are expected to be minimal and not significant.
- PR-MM#5—Implementation of PR-MM#5 sets conditions for the use of land from park, recreation, and school play areas for temporary impact areas during construction. Development of replacement park property could result in secondary environmental effects, including emissions and fugitive dust from construction equipment, construction-related noise, construction-related road closures or traffic delays, mobilization of extant hazardous materials or wastes, development of previously undeveloped land due to private property acquisitions or displacements, and impacts on biological and cultural resources. It is anticipated that such effects would be minor and mostly short term. Any future development will undergo proper environmental review, and potential environmental impacts will be analyzed under appropriate and relevant statutes and guidelines.
- PR-MM#6—The impacts of PR-MM#6 would be the same as those of PR-MM#5.
- PR-MM#7—Implementation of PR-MM#7 will require compensation for the loss of a park, a recreation resource, and/or trails permanently acquired for the HSR improvements in accordance with the Uniform Act and the California Park Preservation Act. Compensation typically will be financial compensation based on the value of the affected property; however, compensation could include new park property or enhancements. Development of new park property could result in secondary environmental effects or environmental effects, including emissions and fugitive dust from construction equipment, construction-related noise, construction-related road closures or traffic delays, mobilization of extant hazardous materials or wastes, and impacts on biological and cultural resources. It is anticipated that such effects would be minor and mostly short term. Any future development shall undergo proper environmental review, and potential environmental impacts will be analyzed under appropriate and relevant statutes and guidelines.



- PR-MM#8—The impacts of PR-MM#8 would be the same as those of PR-MM#7.
- PR-MM#9—The impacts of PR-MM#9 would be the same as those of PR-MM#7.

3.15.8 NEPA Impacts Summary

As described in Section 3.15.4.3, this analysis considers two general categories of project effects on parks, recreation, and open space resources, including those resources within the ANF: (1) construction impacts, and (2) operations impacts. These two categories are further divided by types of impacts or activities with the potential to result in physical impacts or other disruptions to the resource. Impacts PK#1 and PK#2 address construction-related effects, including acquisitions; Impacts PK#3 and PK#4 describe operations-related effects. Impacts under NEPA are considered after mitigation measures have been applied.

Table 3.15-6 lists resources affected by the project and compares impacts by Build Alternative. In total, the Refined SR14 Build Alternative RSA includes 21 parks, recreation, and open space resources. The SR14A Build Alternative RSA includes 22 parks, recreation, and open space resources, the most of all six Build Alternatives. The E1 Build Alternative RSA includes 17 parks, recreation, and open space resources, effectively avoiding 5 more resources than the SR14A Build Alternative. The E1A Build Alternative RSA includes 18 parks, recreation, and open space resources. The E2 Build Alternative RSA includes 13 resources, effectively avoiding 9 more resources than the SR14A Build Alternative, and 4 more resources than the E1 Build Alternative. The E2A Build Alternative RSA includes 14 parks, recreation, and open space resources.

Although the total number of resources affected (i.e., within 1,000 feet of proposed HSR improvements) would differ between the Build Alternatives, many of the most substantial impacts (i.e., acquisitions and/or realignments of trails) would be shared between the Build Alternatives.

Resources that would be impacted by all six Build Alternatives include the following:

- Palmdale Hills Trail (proposed extension)
- Littlerock Trail (proposed extension)

In addition to the common resources impacted by the six Build Alternatives, the Refined SR14 and SR14A Build Alternatives would result in impacts on the following resources:

- Santa Clara River Trail (proposed extension)
- Rim of the Valley Trail (proposed extension)

In addition to the common resources physically affected by the six Build Alternatives, the E1 and E2 Build Alternatives would result in physical impacts on the Vasquez Loop Trail (proposed extension). The E1, E1A, E2, and E2A Build Alternatives would result in physical impacts on the Acton Community Trail (proposed extension). The E2 and E2A Build Alternatives would result in physical impacts on the Hansen Dam Open Space and would also share the same physical impacts on the Rim of the Valley Trail (proposed extension), as described for the Refined SR14 and SR14A Build Alternatives. There are no physical impacts exclusive to the E1 and E1A Build Alternatives. The largest differences in physical impacts would be between the Refined SR14 and E2 Build Alternatives.

With implementation of the Refined SR14 and SR14A Build Alternatives, approximately 127.2 acres of land around the Vulcan Mine would be used for deposition of construction spoils. As previously discussed, the Vulcan Mine site is within the ANF, including the SGMNM, but is not open to the public and does not currently provide recreation resources. Conversely, the physical and non-physical impacts on the Hansen Dam Open Space under the E2 and E2A Build Alternatives would represent one of the largest physical and non-physical impacts of all six of the Build Alternatives. The construction of an elevated railway within this open space area would only take place under the E2 and E2A Build Alternatives, which makes the Refined SR14, SR14A, E1, and E1A Build Alternatives less impactful with regards to parks, recreation, and open space resources.



Given that there are a total of 28 resources with the Build Alternatives' RSA, the Refined SR14 and SR14A Build Alternatives would result in the greatest number of other effects on parks, recreation, and open space resources (i.e., construction-period access, noise, vibration, air quality, and visual changes; and permanent changes to park character). With the inclusion of the applicable IAMFs and implementation of the mitigation measures identified in Section 3.15.7, all six Build Alternatives would avoid, minimize, reduce, or compensate for impacts on these resources.



Table 3.15-5 Comparison of High-Speed Rail Build Alternative Impacts for Parks, Recreation, and Open Space

			Build Al	ternative				NEPA Conclusion before		NEPA Conclusion post	
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	Mitigation	Mitigation	Mitigation (All Build Alternatives)	
Impact PK#1	: Acquisitio	n of Parks,	Recreation, a	and Open S _l	oace Resour	ces.		·		1	
Palmdale Hills Trail (Proposed Extension)	Х	Х	Х	X	Х	X	While the Refined SR14 Build Alternative would not directly require the permanent acquisition of the future trail extension, the tunnel portal in this particular area may result in topographical changes at the surface and/or other permanent improvements that would require the permanent realignment of the trail. The SR14A, E1, and E2 Build Alternatives would construct an at-grade railway alignment that would directly conflict with the proposed trail extension. The permanent acquisition of land in this area would require the realignment of an approximately 300-foot segment of the proposed Palmdale Hills Trail extension. The E1A and E2A Build Alternatives would construct an elevated railway structure that would cross above the proposed trail extension. The permanent acquisition of land in this area would require the realignment of an approximately 300-foot segment of the proposed Palmdale Hills Trail extension.	Adverse Effect (all six Build Alternatives)	PR-MM#6 PR-MM#7 PR-MM#9	No Adverse Effect See Section 3.15.8	
Vasquez Loop (Proposed Extension)	N/A	N/A	Х	N/A	Х	N/A	The E1 and E2 Build Alternatives would require the permanent acquisition of an approximately 720-foot segment of the proposed Vasquez Loop Trail extension. No temporary construction easements would be required beyond this segment of trail that would be permanently replaced by project improvements.	Refined SR14, SR14A, E1A, and E2A: No Adverse Effect E1 and E2: Adverse Effect	PR-MM#6 PR-MM#7 PR-MM#9	Refined SR14, SR14A, E1A, and E2A: N/A See Section 3.15.8 E1 and E2: No Adverse Effect See Section 3.15.8	
Littlerock Trail (Proposed Extension)	X	N/A	X	N/A	X	N/A	The Refined SR14 Build Alternative would include the construction of traction power facilities and overhead utility lines that would conflict with the proposed Littlerock Trail extension in the area of the SR 14/Sierra Highway interchange. Ultimately, the construction of traction power facilities would require the permanent acquisition of approximately 270 feet of the proposed Littlerock Trail extension. There are no temporary easements outside of the permanent acquisition areas, and temporary closure of the trail is not anticipated during construction. The E1 and E2 Build Alternatives would require temporary construction easements that would conflict with an approximately 0.4-mile segment of the proposed Littlerock Trail extension. If the proposed trail extension is operational at the time of project construction, access to the trail along E Carson Mesa Road may be temporarily restricted during construction. The construction of traction power facilities would require the permanent acquisition of an approximately 0.2-mile segment of the proposed Littlerock Trail extension.	Refined SR14, E1, and E2: Adverse Effect SR14A, E1A, and E2A: No Adverse Effect	PR-MM#6 PR-MM#7 PR-MM#9	Refined SR14, E1, and E2: No Adverse Effect See Section 3.15.8 SR14A, E1A, and E2A: N/A See Section 3.15.8	
Acton Community Trail (Proposed Extension)	N/A	N/A	Х	Х	Х	Х	The E1, E1A, E2, and E2A Build Alternatives would require temporary construction easements that would conflict with an approximately 0.25-mile segment of the proposed Acton Community Trail extension near Vincent View Road, and a 0.5-mile segment of the trail along Arrastre Canyon Road. If the proposed trail extension is operational at the time of project construction, access to the trail in these areas would be temporarily restricted. Ultimately, the construction of traction power facilities would require the permanent acquisition of an approximately 150-foot segment of the proposed Acton Community Trail extension, creating a gap in the continuous trail connections north and south of this acquisition.	Refined SR14 and SR14A: No Adverse Effect E1, E1A, E2, and E2A: Adverse Effect	PR-MM#6 PR-MM#7 PR-MM#9	Refined SR14 and SR14A: N/A See Section 3.15.8 E1, E1A, E2, E2A: No Adverse Effect See Section 3.15.8	
Pacific Crest Trail	Х	N/A	N/A	N/A	N/A	N/A	An approximately 400-foot segment of the PCT would be affected by construction and construction staging for the Refined SR14 Build Alternative. The Authority has consulted with the Pacific Crest Trail Association, the Bureau of Land Management, and the USFS regarding trail realignment options and has developed a preliminary trail realignment that would be part of the Refined SR14 Build Alternative, if selected. The realignment would be built and accessible to the public before construction of the Refined SR14 Build Alternatives begin to ensure continuous access to the PCT through the Refined SR14 Build Alternative's construction footprint	No Adverse Effect	No mitigation needed	N/A See Section 3.15.8	



			Build Al	ternative						NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	NEPA Conclusion before Mitigation	Mitigation	Mitigation (All Build Alternatives)
Santa Clara River Trail (Proposed Extension)	Х	Х	N/A	N/A	N/A	N/A	The construction of the Refined SR14 and SR14A Build Alternatives' elevated viaduct over the Santa Clara River would require the permanent acquisition of an approximately 200-foot segment of the proposed Santa Clara River Trail extension near Soledad Canyon Road. Additionally, construction of overhead electrical utility lines would require the permanent acquisition of an approximately 160-foot segment of the proposed Santa Clara River Trail extension near Lang Station Road. Although ownership of this land would change, the trail would remain open and available to the public, and the overall connectivity of the trail both locally and across its entire length would remain as it was before the construction of the Refined SR14 and SR14A Build Alternatives. No additional temporary construction easements would be needed beyond the permanent acquisition areas for the viaduct and utility line crossings.	Refined SR14 and SR14A: Adverse Effect E1, E1A, E2, and E2A: No Adverse Effect	PR-MM#6 PR-MM#7 PR-MM#9	Refined SR14 and SR14A: No Adverse Effect See Section 3.15.8 E1, E1A, E2, and E2A: N/A See Section 3.15.8
Angeles National Forest including San Gabriel Mountain National Monument	X	X	X	X	X	X	The total use of USFS land under the Refined SR14 and SR14A Build Alternatives would represent 0.04 percent of the ANF. Because these areas do not provide active recreation resources, are not open to the public, and represent a very small portion of the ANF the impacts of the Refined SR14 and SR14A Build Alternatives would not adversely affect the ANF, including the SGMNM, from continuing to function as a national and regional recreation resource. The total use of land under the E1 and the E1A Build Alternatives would represent less than 0.01 percent of the ANF. Acquisition of the land described here would not adversely affect the ANF, including the SGMNM, from continuing to function as a national and regional recreation resource. The total use of land under the E2 and E2A Build Alternatives would represent less than 0.01 percent of the ANF, including the SGMNM. Acquisition of the land described here would not prevent the ANF, including the SGMNM, from continuing to function as a national and regional recreation resource. Therefore, implementation of the E2 and E2A Build Alternatives would not substantially reduce the capacity, function, or value of this recreation resource.	No Adverse Effect (all six Build Alternatives)	No mitigation needed	N/A See Section 3.15.8
Rim of the Valley Trail (Proposed Extension)	Х	Х	N/A	N/A	Х	Х	An approximately 330-foot segment of the proposed Rim of the Valley Trail extension would be used as a construction staging area under the Refined SR14 and SR14A Build Alternatives. However, the Refined SR14 and SR14A Build Alternatives would not result in permanent acquisitions of the proposed trail. An approximately 400-foot segment of the proposed Rim of the Valley Trail extension would be used as a construction staging area under the E2 and E2A Build Alternatives. However, the E2 and E2A Build Alternatives would not result in permanent acquisitions of the proposed trail.	Refined SR14, SR14A, E2, and E2A: Adverse Effect E1 and E1A: No Adverse Effect/Outside of RSA	PR-MM#6 PR-MM#7 PR-MM#9	Refined SR14, SR14A, E2, and E2A: No Adverse Effect See Section 3.15.8 E1 and E1A: N/A See Section 3.15.8
Hansen Dam Open Space	N/A	N/A	N/A	N/A	Х	X	The E2 and E2A Build Alternatives would construct a viaduct within the Hansen Dam Open Space, including the placement of piers/footings. The total permanent acquisition area would be approximately 13 acres, approximately 1.6 percent of the entire open space acreage. Temporary construction easements and staging areas within the Hansen Dam Open Space would not extend beyond the permanent acquisition areas.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: Adverse Effect	PR-MM#6 PR-MM#7 PR-MM#9	Refined SR14, SR14A, E1, and E1A: N/A See Section 3.15.8 E2 and E2A: No Adverse Effect See Section 3.15.8
		on-Related		se, Vibration	· •	, and Visua	ll Changes to Parks, Recreation, and Open Space Resources.			
Tejon Equestrian Park	N/A	Х	N/A	X	N/A	X	The construction of the at-grade SR14A, E1A, and E2A Build Alternative alignments east of Sierra Highway would be the nearest construction activities to the Tejon Equestrian Park, approximately 310 feet to the west. With implementation of the SR14A, E1A, and E2A Build Alternatives, an underpass on East Barrel Springs Road would be built to allow the proposed at-grade HSR alignment to pass over the road. Park users would also have unobstructed views of the construction activities in this area. Construction activities would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction.	Refined SR14, E1, and E2: No Adverse Effect/Outside of RSA SR14A, E1A, and E2A: Adverse Effect	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#5	Refined SR14, E1, and E2: N/A See Section 3.15.8 SR14A, E1A, and E2A: No Adverse Effect See Section 3.15.8



	Build Alternative						NEPA Conclusion before		NEPA Conclusion post	
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	Mitigation	Mitigation	Mitigation (All Build Alternatives)
Palmdale Hills Trail (Proposed Extension)	Х	Х	X	Х	Х	Х	If the proposed Palmdale Hills Trail extension is operational at the time of project construction, access to an approximately 0.8-mile segment of the proposed trail extension would be temporarily restricted for all six Build Alternatives. Construction associated with the railway alignment would temporarily increase dust and noise in area of the proposed Palmdale Hills Trail extension, which could inhibit the use of the trail segments not closed from project construction. Construction methods would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the Palmdale Hills Trail extension to continue to operate for all six Build Alternatives.	Adverse Effect (all six Build Alternatives)	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	No Adverse Effect See Section 3.15.8
Vasquez Loop (Proposed Extension)	N/A	N/A	X	N/A	X	N/A	The Refined SR14, SR14A, E1A, and E2A Build Alternatives would be built as a bored tunnel at the proposed Vasquez Loop Trail extension near Peaceful Valley Road. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the trail crossing. For the Refined SR14 Build Alternative, at Red Rover Mine Road, construction associated with the railway alignment and overhead utilities would temporarily increase dust and noise in area of the proposed Vasquez Loop Trail extension. Construction methods would control dust and noise during construction that would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the proposed Vasquez Loop Trail extension to continue to operate. The E1 and E2 Build Alternatives would require the closure and relocation of a segment of the proposed Vasquez Loop Trail extension. For those trail segments not physically acquired by the HSR improvements but within 1,000 feet of construction activities, construction associated with the railway alignment and overhead utilities would temporarily increase dust and noise in area of the proposed Vasquez Loop Trail extension. Construction methods would control dust and noise during construction that would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the segments of the proposed Vasquez Loop Trail extension to continue to operate.	Refined SR14, SR14A, E1A, and E2A: No Adverse Effect E1 and E2: Adverse Effect	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Refined SR14, SR14A, E1A, and E2A: N/A See Section 3.15.8 E1 and E2: No Adverse Effect See Section 3.15.8
Littlerock Trail (Proposed Extension)	X	N/A	Х	N/A	Х	N/A	Temporary easements would be needed to build the traction power facilities across the proposed Littlerock Trail extension at E Carson Mesa Road for Refined SR14 Build Alternative, E1 and E2 Build Alternatives. These temporary easements are not anticipated to require the closure or realignment of the trail. Construction associated with the traction power facilities would temporarily increase dust and noise in area of the proposed Littlerock Trail extension, which would inhibit the use of the trail segments outside of the physical impact areas, but would be reduced to a level that would allow the segments of the proposed Littlerock Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area, but these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. At the proposed Littlerock Trail extension near the SR 14/Sierra Highway interchange, the SR14A, E1A, and E2A Build Alternatives would be built as bored tunnels. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the trail crossing.	No Adverse Effect (all six Build Alternatives)	No mitigation needed	N/A See Section 3.15.8
Acton Community Trail (Proposed Extension)	N/A	N/A	Х	Х	Х	Х	The Acton Community Trail is outside the Refined SR14 and SR14A Build Alternatives' RSAs. Construction associated with the railway alignment and traction power facilities for the E1, E1A, E2, and E2A Build Alternatives would temporarily increase dust and noise in area of the proposed Acton Community Trail extension, which would inhibit the use of the trail segments outside of the physical impact areas. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction.	Refined SR14 and SR14A: No Adverse Effect/Outside of RSA E1, E1A, E2, and E2A: Adverse Effect	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Refined SR14 and SR14A: N/A See Section 3.15.8 E1, E1A, E2, and E2A: No Adverse Effect See Section 3.15.8



			Build Al	ternative				NEDA Canalysian hafara		NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	NEPA Conclusion before Mitigation	Mitigation	Mitigation (All Build Alternatives)
Darrell Readmond Trail (Proposed Extension)	Х	Х	N/A	N/A	N/A	N/A	Construction associated with the Refined SR14 Build Alternative railway would temporarily increase dust and noise at this resource, which would inhibit the use of the trail's northern terminus. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction. At the proposed Darrel Readmond Trail extension at Escondido Canyon Road, the SR14A Build Alternative would be built as a bored tunnel. No topographical changes at the surface and/or other permanent changes would take place; as such, no temporary access, noise, vibration, air quality, or visual changes would occur at this location of the trail crossing. The Darrell Readmond Trail is outside the E1, E1A, E2, and E2A Build Alternatives' RSAs.	Refined SR14 and SR14A: No Adverse Effect E1, E1A, E2, and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
Pacific Crest Trail	Х	N/A	N/A	N/A	N/A	N/A	Construction associated with the Refined SR14 Build Alternatives would temporarily increase dust and noise at the PCT, which could inhibit the use of the trail. PCT users would have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction.	Refined SR14: Adverse Effect SR14A, E1, E1A, E2, E2A: No Adverse Effect/Outside of RSA	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Refined SR14: No Adverse Effect See Section 3.15.8 SR14A, E1, E1A, E2, E2A: N/A See Section 3.15.8
Santa Clara River Trail (Proposed Extension)	X	Х	N/A	N/A	N/A	N/A	Installation of overhead utility lines and the elevated railway alignment over the Santa Clara River for the Refined SR14 and SR14A Build Alternatives would require partial closure of the trail during construction. Access to these sections of the trail would be temporarily closed, requiring a detour. Segments of the trail outside of this area would remain open and accessible to the public. Construction associated with the Refined SR14 and SR14A Build Alternatives railway would temporarily increase dust and noise at the proposed Santa Clara River Trail extension, which would inhibit the use of the trails. The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the Santa Clara River Trail extension to continue to operate. Trail users would also have unobstructed views of the construction activities in this area. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction.	Refined SR14 and SR14A: Adverse Effect E1, E1A, E2, E2A: No Adverse Effect/Outside of RSA	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Refined SR14 and SR14A: No Adverse Effect See Section 3.15.8 E1, E1A, E2, E2A: N/A See Section 3.15.8
Angeles National Forest including San Gabriel Mountain National Monument	X	Х	X	X	Х	Х	There is no existing public access to the Refined SR14 and SR14A Build Alternatives' construction areas within the ANF. Vehicular and pedestrian access to the ANF would be maintained from all existing access points during project construction. Closure of the ANF would not be required, and no detours are proposed. Therefore, construction of the Refined SR14 and SR14A Build Alternatives would not temporarily create a barrier for access or inhibit use of ANF, including the SGMNM. Visitors to the ANF, including the SGMNM, would have unobstructed views of the construction activities taking place at the Refined SR14 and SR14A Build Alternative adits within the ANF. Temporary construction staging areas associated with adits would be visible, depending on the location and surrounding topography. Construction staging areas would introduce major visual changes to the immediate surroundings. However, these impacts would be temporary and disturbed areas would be restored after completion of construction. The temporary access, noise, vibration, air quality, and visual impacts described for the Refined SR14 and SR14A Build Alternatives would be similar for the E1, E1A, E2, and E2A Build Alternatives, including unobstructed views of construction activities for ANF visitors.	No Adverse Effect (all six Build Alternatives)	No mitigation needed	N/A See Section 3.15.8



			Build Al	ternative				N=0.0 1.1.1.1		NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	NEPA Conclusion before Mitigation	Mitigation	Mitigation (All Build Alternatives)
Rim of the Valley Trail (Proposed Extension)	Х	Х	N/A	N/A	Х	Х	Construction associated with the Refined SR14 and SR14A Build Alternatives would temporarily increase dust and noise at the proposed Rim of the Valley Trail extension, which would inhibit use of the trail. Rim of the Valley Trail users would have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. The temporary impacts related to noise, dust, and visual changes during construction described for the Refined SR14 and SR14A Build Alternatives would be similar for the E2 and the E2A Build Alternatives.	Refined SR14, SR14A, E2, and E2A: Adverse Effect E1 and E1A: No Adverse Effect/Outside of RSA	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Refined SR14, SR14A, E2, and E2A: No Adverse Effect See Section 3.15.8 E1 and E1A: N/A See Section 3.15.8
Hillery T. Broadous Elementary School	Х	Х	Х	Х	N/A	N/A	For the Refined SR14, SR14A, E1, and E1A Build Alternatives, construction associated with the adjacent intermediate windows (SR14-W2 and E1-W2b) could increase dust and noise at the Hillery T. Broadous Elementary School. The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the school to continue to operate with outdoor play areas. Users of the outdoor play areas could have partially obstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be restored to preconstruction conditions after completion of construction.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect E2 and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
HHH Memorial Recreation Center and Pool	Х	Х	X	Х	N/A	N/A	Construction associated with the adjacent window option (SR14-W2 and E1-W2b) for the Refined SR14, and E1 Build Alternatives could temporarily increase dust and noise at the HHH Memorial Recreation Center and Pool. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect E2 and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
Hansen Dam Open Space	N/A	N/A	N/A	N/A	X	Х	Construction of the E2 and E2A Build Alternatives' viaduct structure would require temporary closure of the Hansen Dam Open Space area in the immediate vicinity of the proposed railway alignment, and access to the open space area from Wentworth Street would be interrupted by construction activities adjacent to this resource where the E2 and E2A Build Alternatives would cross below the roadway. Construction of the E2 and E2A Build Alternatives viaduct could temporarily increase dust and noise within the Hansen Dam Open Space. Users of the Hansen Dam Open Space would have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. See Impact PK#3 for a description of visual impacts related to the placement of a permanent viaduct structure in this area.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: Adverse Effect	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Refined SR14, SR14A, E1, and E1A: N/A See Section 3.15.8 E2 and E2A: No Adverse Effect See Section 3.15.8
Stonehurst Park and Recreation Center	N/A	N/A	N/A	N/A	X	Х	The use of the adjacent CalMat Mine site as a disposal site for spoils generated by the E2 and E2A Build Alternatives could temporarily increase dust and noise at Stonehurst Park. Users of Stonehurst Park would have partially obstructed views of construction activities that would be immediately adjacent to the park. Staging areas would introduce visually intrusive accumulations of stored material and equipment. However, spoils disposal would have the same character and context as the current activities at the CalMat Mine site and would be temporary. Vehicular and pedestrian access to the park would be maintained from all existing access points during project construction. No visual changes to the immediate surroundings are anticipated.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: No Adverse Effect	No mitigation needed	N/A See Section 3.15.8
Stonehurst Avenue Elementary School	N/A	N/A	N/A	N/A	Х	Х	The use of the CalMat Mine site as a disposal site for spoils generated by the E2 and E2A Build Alternatives would temporarily increase dust and noise at Stonehurst Avenue Elementary School. No visual changes to the immediate surroundings are anticipated.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: No Adverse Effect	No mitigation needed	N/A See Section 3.15.8

California High-Speed Rail Authority

August 2022

Palmdale to Burbank Project Section Draft EIR/EIS



			Build Al	ternative				NEDA Complusion hofour		NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	NEPA Conclusion before Mitigation	Mitigation	Mitigation (All Build Alternatives)
Sun Valley Pool/Sun Valley Park and Recreation Center	Х	Х	Х	Х	N/A	N/A	Construction associated with the cut-and-cover tunnel railway alignment along San Fernando Road could temporarily increase dust and noise at the Sun Valley Pool/Sun Valley Park and Recreation Center for the Refined SR14, SR14A, E1, and E1A Build Alternatives. Park users would have partially obstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. The roadway improvements at Cantara Street and Vineland Avenue would temporarily close this intersection; however, open access to the park from all bordering roadways would still be provided.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect E2 and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
Roscoe Elementary School	X	X	X	X	N/A	N/A	Construction associated with the cut-and-cover tunnel along San Fernando Road could temporarily increase dust and noise at the Roscoe Elementary School outdoor play areas for the Refined SR14, SR14A, E1, and E1A Build Alternatives. The measures developed as part of the construction plans will ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the school to continue to operate. Users of the outdoor play areas at Roscoe Elementary School could have unobstructed views of the construction activities. Staging areas would introduce major visual changes to the immediate surroundings with visually intrusive accumulations of stored material and equipment. However, these impacts would be temporary and disturbed areas would be remediated after completion of construction. The cut-and-cover tunnel alignment within San Fernando Road and the improvements at the San Fernando	Refined SR14, SR14A, E1, and E1A: No Adverse Effect E2 and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
Glenwood	N/A	N/A	N/A	N/A	X	Х	Road/Strathern Street/Clybourn Avenue intersection would result in temporary roadway and/or lane closures; however, access to the school would still be provided from White Street and the main entrance on Strathern Street. Construction associated with the cut-and-cover tunnel railway alignment along San Fernando Road could temporarily increase	Refined SR14, SR14A, E1,	No mitigation	N/A
Elementary School							dust and noise at Glenwood Elementary School for the E2 and E2A Build Alternatives. The measures developed as part of the construction plans would ensure that temporary increases in dust, noise, and vibration would be reduced to a level that would allow the outdoor play areas at Glenwood Elementary School to continue to operate. Due to the relative distance to San Fernando Road and the intervening development, users of the school play areas would not have views of construction activities. Access to and from Glenwood Elementary School would not be affected.	and E1A: No Adverse Effect/Outside of RSA E2 and E2A: No Adverse Effect	needed	See Section 3.15.8
Impact PK#3	: Changes t	o Park, Rec	reation, and	Open Space	Resource C	haracter.				
Tejon Equestrian Park	N/A	Х	N/A	Х	N/A	Х	The SR14A, E1A, and E2A Build Alternatives would change the character of this recreation resource. However, these changes would not reduce the capacity or value of the equestrian park to the surrounding communities. The facilities closest to the SR14A, E1A, and E2A Build Alternative alignments would be the parking lot and arena, both of which do not require a quiet setting to operate. The Sierra Highway currently passes less than 1,000 feet from the park, creating an existing noisy environment. The current equestrian facilities would continue to operate as part of Tejon Equestrian Park facility with implementation of the SR14A, E1A, and E2A Build Alternatives.	Refined SR14, E1, and E2: No Adverse Effect/Outside of RSA SR14A, E1A, and E2A: Adverse Effect	PR-MM#8	Refined SR14, E1, and E2: N/A See Section 3.15.8 SR14A, E1A, and E2A: No Adverse Effect See Section 3.15.8
Palmdale Hills Trail (Proposed Extension)	X	X	X	X	X	X	If the Palmdale Hills Trail extension is operational at the time the Palmdale to Burbank Project Section is completed, implementation of the Refined SR14 Build Alternative would change the environment trail users' experience. The currently proposed trail extension follows a largely vacant/rural area along the north side of the California Aqueduct. Under the currently proposed trail alignment, the at-grade segment of the Refined SR14 Build Alternative would be visible to the north from several viewpoints along the Palmdale Hills Trail. Noise from passing trains along the at-grade portion of the alignment would be perceptible to trail users. Permanent noise, vibration, air quality, or visual changes to the Palmdale Hills Trail extension, as previously described for the Refined SR14 Build Alternative, would be similar with implementation of the SR14A, E1, E1A, E2, or E2A Build Alternatives.	Adverse Effect (all six Build Alternatives)	PR-MM#8	No Adverse Effect See Section 3.15.8

August 2022 California High-Speed Rail Authority



	Build Alternative							NEDA O L I L C		NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	NEPA Conclusion before Mitigation	Mitigation	Mitigation (All Build Alternatives)
Vasquez Loop (Proposed Extension)	N/A	N/A	Х	N/A	Х	N/A	At the proposed Vasquez Loop Trail extension, the Refined SR14, SR14A, E1A, and E2A Build Alternatives would be built as a bored tunnel. The E1 and E2 Build Alternatives would completely replace a 720-foot segment of the proposed Vasquez Loop Trail extension with project improvements.	Refined SR14, SR14A, E1A, and E2A: No Adverse Effect E1 and E2: Adverse Effect	PR-MM#8	Refined SR14, SR14A, E1A, and E2A: N/A See Section 3.15.8 E1 and E2: No Adverse Effect See Section 3.15.8
Littlerock Trail (Proposed Extension)	N/A	N/A	X	N/A	X	N/A	The closest segment of the Refined SR14 Build Alternative railway would be a bored tunnel approximately 1 mile (5,280 feet) northeast of the proposed Littlerock Trail extension, which would have no operations effects on this trail. Because the traction power facility would not generate loud noises, noise impacts from project operations are not anticipated for this future trail. Overhead electrical utility lines over E Carson Mesa Road would alter views from the proposed Littlerock Trail extension, and train operations within an open retained cut/trench immediately north and south of the proposed Littlerock Trail crossing would be perceptible to trail users. However, this segment of the proposed trail extension is immediately adjacent to the SR 14 and Sierra Highway corridors, as well as the Metrolink Rail Corridor. Due to the existing setting in the vicinity of the proposed Littlerock Trail extension, implementation of the Refined SR14, E1A and E2 Build Alternatives would not change the character of this trail. Due to the existing setting in the vicinity of the proposed HSR trail crossing, implementation of the SR14A, E1A, and E2A Build Alternatives would not change the character of this trail.	No Adverse Effect (all six Build Alternatives)	No Mitigation needed	N/A See Section 3.15.8
Acton Community Trail (Proposed Extension)	N/A	N/A	Х	Х	X	Х	The Acton Community Trail is outside the Refined SR14 and SR14A Build Alternatives' RSAs. Under the currently proposed trail alignment, the at-grade segment of the HSR railway and the overhead electrical utility lines would be visible from several viewpoints along the Acton Community Trail for the E1, E1A, E2, and E2A Build Alternatives. Noise from passing trains along the at-grade portion of the alignment would be perceptible to trail users. However, this segment of the proposed Acton Community Trail extension would be immediately adjacent to the Vincent Grade/Acton Metrolink Station and associated railways. Due to the existing urban setting in the vicinity of the proposed HSR improvements, implementation of the E1, E1A, E2, and E2A Build Alternatives would not change the character of those trail segments that would not be permanently replaced or realigned by HSR improvements.	Refined SR14 and SR14A: No Adverse Effect/Outside of RSA E1, E1A, E2, and E2A: Adverse Effect	PR-MM#8	Refined SR14 and SR14A: N/A See Section 3.15.8 E1, E1A, E2, and E2A: No Adverse Effect See Section 3.15.8
Darrell Readmond Trail (Proposed Extension)	Х	N/A	N/A	N/A	N/A	N/A	Construction of railway viaduct over Escondido Canyon Road for the Refined SR14 Build Alternative would be visible from the proposed Darrell Readmond Trail extension, which would have potential to affect the trail's character during operations. However, due to the distance of the Refined SR14 Build Alternative alignment and proximity of the SR 14 freeway, the operations and maintenance of the Refined SR14 Build Alternative would not change the character of the proposed trail extension. At the proposed Darrell Readmond Trail extension at Escondido Canyon Road, the SR14A Build Alternative would be a bored tunnel. Due to the existing setting in the vicinity of the proposed HSR trail crossing, implementation of the SR14A Build Alternative would not change the character of this trail.	Refined SR14 and SR14A: No Adverse Effect E1, E1A, E2 and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
Pacific Crest Trail	X	N/A	N/A	N/A	N/A	N/A	A proposed PCT realignment would be part of the Refined SR14 Build Alternatives, if selected. The proposed realignment has been designed to minimize air quality, visual, and noise impacts on users of the PCT by routing trail uses away from both the SR 14 freeway and the HSR rail alignment as quickly as possible. This may be an overall benefit to trail users as the existing trail runs parallel to the east side of the SR 14 freeway for roughly 0.75 mile before heading further east. Therefore, operations and maintenance of the Refined SR14 Build Alternatives would not result in adverse changes to the character of this recreation resource or reduce its capacity or value in the long term and could result in beneficial effects for PCT users.	Refined SR14: No Adverse Effect SR14A, E1, E1A, E2, and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8



			Build Al	Iternative				NEPA Conclusion before		NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	Mitigation	Mitigation	Mitigation (All Build Alternatives)
Santa Clara River Trail (Proposed Extension)	X	Х	N/A	N/A	N/A	N/A	The railway viaduct and electrical utility lines over the Santa Clara River would require the permanent acquisition of two segments of the proposed Santa Clara River Trail extension. Although ownership of this land would change, the trail would remain open and available to the public and would function as it was before operations of the Refined SR14 and SR14A Build Alternatives. Train operations on the viaduct and the overhead electrical utility lines over the Santa Clara River would alter views from the proposed trail extension. Noise from passing trains along the at-grade portion of the alignment would also be perceptible to trail users. However, this segment of the proposed trail extension is immediately adjacent to the Metrolink Rail Corridor and the Vulcan Mine. Due to the existing setting in the vicinity of the proposed viaduct and utility crossings, implementation of the Refined SR14 and SR14A Build Alternatives would not change the character of this trail.	Refined SR14 and SR14A: No Adverse Effect E1, E1A, E2 and E2A: No Adverse Effect/Outside of RSA	No mitigation needed	N/A See Section 3.15.8
Angeles National Forest including San Gabriel Mountain National Monument	X	X	X	X	X	X	The Refined SR14 and SR14A Build Alternatives would include a bored tunnel through an approximately 12-mile section of the ANF including the SGMNM. The tunnel would have a maximum depth of 2,080 feet. Operations in the Refined SR14 and SR14A Build Alternatives tunnel beneath the ANF would not result in impacts such as noise or vibration at the surface. Permanent surface improvements within the ANF, including the SGMNM, would occupy approximately 0.6 acre of land for existing access roadways and 5 acres for electrical utility facilities. Alternative utility easements would largely follow existing roadways and utility easements within the ANF. As a result, operations and maintenance of these facilities would not result in a substantive change in character during project operations. The E1 and E1A Build Alternatives would include a bored tunnel through an approximately 16.5-mile section of the ANF, including the SGMNM. The tunnel would have a maximum depth of 2,060 feet. Operation of the E1 and E1A Build Alternatives tunnel beneath ANF would not result in operations impacts such as noise or vibration at the surface. Permanent surface improvements would occupy approximately 6.5 acres of the ANF, including the SGMNM, related to the lowering the profile of Aliso Canyon Road and 6.2 acres for electrical utilities. The E1 and E1A Build Alternatives' utility easements would largely follow existing roadways or utility easements within the ANF, including the SGMNM. Operations and maintenance of these facilities during project operation would be similar to existing conditions because this roadway and utility easement currently exist within the ANF, including the SGMNM. The E2 and E2A Build Alternatives would include a bored tunnel through an approximately 16.6-mile section of the ANF, including the SGMNM. The tunnel would have a maximum depth of 2,670 feet. The E2 and E2A Build Alternatives, with the exception of an additional permanent ventilation access structure that would be included in the design for the adit Opt	No Adverse Effect (all six Build Alternatives)	No mitigation needed	N/A See Section 3.15.8
Hansen Dam Open Space	N/A	N/A	N/A	N/A	Х	X	The E2 and E2A Build Alternatives would construct a viaduct within the Hansen Dam Open Space. The viaduct structure, vertical piers, and distant tunnel portals would be highly visible and would contrast with the existing visual setting. Patrons of the open space area would be highly sensitive to these visual changes, as the changes would impinge upon the natural harmony of the views in this area. The total area of the Hansen Dam Open Space is 813 acres, and the total permanent acquisition area for the E2 and E2A Build Alternatives would be approximately 13 acres. The resource would remain accessible in the long term, and users would be able to pass under the viaduct to move from one area of the open space to another. Noise from passing trains would be perceptible to patrons of the open space area. Given the above visual- and noise-related impacts related to operation of the viaduct within the Hansen Dam Open Space area, the E2 and E2A Build Alternatives would change the character of this recreation resource.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: Adverse Effect	PR-MM#8	Refined SR14, SR14A, E1, and E1A: N/A See Section 3.15.8 E2 and E2A: No Adverse Effect See Section 3.15.8



	Build Alternative							NEPA Conclusion before		NEPA Conclusion post
Resource Name	Refined SR14	SR14A	E1	E1A	E2	E2A	Impacts on Parks, Recreation, and Open Space Resource(s) by Affected Build Alternatives	Mitigation	Mitigation	Mitigation (All Build Alternatives)
Stonehurst Park and Recreation Center	N/A	N/A	N/A	N/A	Х	Х	For the E2 and E2A Build Alternatives, the bored tunnel alignments that would pass more than 1,000 feet from Stonehurst Park would have no associated physical improvements and would not present operations impacts that would change the character of the park. The permanent improvements associated with the adjacent intermediate window option (E2-W2) on the CalMat Mine site would consist of relatively small structures consistent with the surrounding urban environment and would not affect park operations.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: No Adverse Effect	No mitigation needed	N/A See Section 3.15.8
Stonehurst Avenue Elementary School	N/A	N/A	N/A	N/A	Х	Х	The E2 and E2A Build Alternatives include a bored tunnel alignment that would pass underneath Stonehurst Avenue Elementary School approximately 280 feet below ground surface. The tunnel would have no associated surface improvements and would not present operations impacts that would change the character of the school. The permanent improvements associated with the adjacent intermediate window option (E2-W2) on the CalMat Mine site would consist of relatively small structures consistent with the surrounding urban environment and would not affect school operations.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: No Adverse Effect	No mitigation needed	N/A See Section 3.15.8
Impact PK#4	: Increased	or Decrease	ed Use of Pa	rks, Recreat	tion, and Ope	en Space Re	esources.			
Vasquez Loop (Proposed Extension)	N/A	N/A	X	N/A	Х	N/A	Although the E1 and E2 Build Alternatives would entail replacement of an approximately 720-foot segment of the proposed Vasquez Loop Trail extension, the trail would remain open and available to the public after project construction is complete. The use of this trail would not increase or decrease with implementation of the E1 and E2 Build Alternatives.	No Adverse Effect (all six Build Alternatives)	No mitigation needed	N/A See Section 3.15.8
Littlerock Trail (Proposed Extension)	X	X	Х	Х	X	Х	If the proposed Littlerock Trail extension is operational during project construction, the Refined SR14, E1, and E2 Build Alternatives would ensure that the resource is fully functional at the time of project completion. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. Although changes to the visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not lead to physical deterioration of the proposed Littlerock Trail extension. The use of this trail would not increase or decrease with implementation of either the Refined SR14, E1, or E2 Build Alternative. The Palmdale to Burbank Project Section does not propose permanent facilities in the area of the trail extension that would increase or decrease access to the trail. While changes to the noise and visual environment would change the experience for trail users, the Palmdale to Burbank Project Section would not affect the functionality of the proposed	No Adverse Effect (all six Build Alternatives)	No mitigation needed	N/A See Section 3.15.8
							Littlerock Trail extension. The use of this trail would not increase or decrease with implementation of the SR14A, E1A, and E2A Build Alternatives.			
Acton Community Trail (Proposed Extension)	N/A	N/A	Х	Х	X	Х	The Acton Community Trail is outside the Refined SR14 and SR14A Build Alternatives' RSAs. The E1, E1A, E2, and E2A Build Alternatives would completely replace a 150-foot segment of the proposed Acton Community Trail extension with HSR improvements, creating a gap in the continuous trail connections north and south of this acquisition. This gap would create a physical barrier that would lead to decreased trail use and physical deterioration of the trail.	Refined SR14 and SR14A: No Adverse Effect/Outside of RSA E1, E1A, E2, and E2A: Adverse Effect	PR-MM#8	Refined SR14 and SR14A: N/A See Section 3.15.8 E1, E1A, E2, and E2A: No Adverse Effect See Section 3.15.8
Hansen Dam Open Space	N/A	N/A	N/A	N/A	Х	Х	The use of the Hansen Dam Open Space would not increase or decrease with implementation of the E2.and E2A Build Alternatives. The proposed viaduct railway alignment would not increase access or otherwise locate new users in the vicinity of the open space. The E2 and E2A Build Alternative alignments would cross the eastern edge of the Hansen Dam Open Space, while the majority of open space amenities are on the western side. Additionally, only a small portion of the park would be affected by operations of the E2 and E2A Build Alternatives. The changes described under Impact PK#3 would not inhibit the desirability of the resource to the extent that use would decrease, nor would the changes lead to physical deterioration of the resource.	Refined SR14, SR14A, E1, and E1A: No Adverse Effect/Outside of RSA E2 and E2A: No Adverse Effect	No mitigation needed	N/A See Section 3.15.8

N/A = not applicable, or resource is not in the respective Build Alternative's resource study area.



3.15.9 CEQA Significance Conclusions

Table 3.15-6 summarizes the impacts, mitigation measures, and level of significance after mitigation for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives. With incorporation of these mitigation measures, all impacts would be reduced to a less-than-significant level under CEQA. Table 3.15-7 summarizes impacts by individual resource, providing details on impacts by alternative and level of significance after mitigation. Significant impacts are defined by the Authority in Section 3.15.4.5 and focus on permanent prevention of use or physical deterioration impacts on parks, recreation, and open space resources. Inclusion of the applicable IAMFs and the implementation of mitigation measures identified in Section 3.15.7 would avoid, minimize, reduce, or compensate for all effects and impacts on these resources.

Mitigation measures addressing impacts due to construction are included in PR-MM#1 through PR-MM#6. Construction-related impacts will be mitigated by ensuring that the public would continue to have access to unaffected areas of park facilities while being temporarily restricted from areas affected by construction. Standard safety measures will be implemented to maximize both public safety and park use during construction. This will include the potential for modifications to affected recreation areas prior to initiating project construction. Land used temporarily would be restored at the end of construction to original or better condition than prior to construction.

Table 3.15-6 Summary of CEQA Significance Conclusions and Mitigation Measures for Parks, Recreation, and Open Space by Impact

Impact	Applicable Build Alternatives	CEQA Level of Significance before Mitigation	Mitigation Measure	CEQA Level of Significance after Mitigation
Impact PK#1: Acquisition of Parks, Recreation, and Open Space Resources.	All six Build Alternatives	Significant	PR-MM#6 PR-MM#7 PR-MM#9	Less than Significant
Impact PK#2: Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes to Parks, Recreation, and Open Space Resources.	All six Build Alternatives	Significant	PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5	Less than Significant
Impact PK#3: Changes to Park, Recreation, and Open Space Resource Character.	All six Build Alternatives	Significant	PR-MM#8	Less than Significant
Impact PK#4: Increased or Decreased Use of Parks, Recreation, and Open Space Resources.	E1, E1A, E2, and E2A Build Alternatives	Significant	PR-MM#8	Less than Significant

CEQA = California Environmental Quality Act

Mitigation measures addressing permanent impacts are included in PR-MM#7 through PR-MM#9. These measures will require compensation for land permanently acquired for the Build Alternatives. Compensation typically would be financial based on the value of the affected property; however, compensation could include new park property or enhancements. With incorporation of mitigation measures, impacts on parks, recreation, and open space areas would be reduced to less than significant levels for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives.



Table 3.15-7 Summary of CEQA Significance Conclusions and Mitigation Measures for Parks, Recreation, and Open Space by Resource

Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Central Subsection		·	
Tejon Equestrian Park	Refined SR14, E1, and E2 Build Alternatives No Impact/Outside of RSA SR14A, E1A and E2A Build Alternatives Impact PK#1: No Impact Impact PK#2: Significant Impact PK#3: Significant Impact PK#4: No Impact	Refined SR14, E1, and E2 Build Alternatives N/A SR14A, E1A and E2A Build Alternatives PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5 PR-MM#5	Refined SR14, E1, and E2 Build Alternatives N/A SR14A, E1A and E2A Build Alternatives Impact PK#1: N/A Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: N/A
Palmdale Hills Trail (Proposed Extension)	All Six Build Alternatives Impact PK#1: Significant Impact PK#2: Significant Impact PK#3: Significant Impact PK#4: No Impact	All Six Build Alternatives ■ PR-MM#1	All Six Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: N/A
Vasquez Loop Trail (Proposed Extension)	Refined SR14, SR14A, E1A, and E2A Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: No Impact E1 and E2 Build Alternatives Impact PK#1: Significant Impact PK#2: Significant Impact PK#3: Significant Impact PK#3: Significant Impact PK#4: Less than Significant	Refined SR14, SR14A, E1A, and E2A Build Alternatives No mitigation measures are required. E1 and E2 Build Alternatives PR-MM#1 PR-MM#6 PR-MM#2 PR-MM#7 PR-MM#3 PR-MM#8 PR-MM#4 PR-MM#8 PR-MM#4 PR-MM#9	Refined SR14 and SR14A Build Alternatives N/A E1, E1A, E2, and E2A Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Littlerock Trail (Proposed Extension)	Refined SR14, E1, and E2 Build Alternatives Impact PK#1: Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: Less than Significant SR14A, E1A, and E2A Build Alternatives Impact PK#1: No Impact. Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#3: Less than Significant Impact PK#4: Less than Significant	Refined SR14, E1, and E2 Build Alternatives PR-MM#6 PR-MM#7 PR-MM#9 SR14A, E1A, and E2A Build Alternatives No mitigation measures are required.	All Six Build Alternatives Impact PK#1: Less than Significant Impact PK#2: N/A Impact PK#3: N/A Impact PK#4: N/A
Acton Community Trail (Proposed Extension)	Refined SR14 and SR14A Build Alternatives No Impact/Outside of RSA E1, E1A, E2, and E2A Build Alternatives Impact PK#1: Significant Impact PK#2: Significant Impact PK#3: Significant Impact PK#4: Significant	Refined SR14 and SR14A Build Alternatives N/A E1, E1A, E2, and E2A Build Alternatives ■ PR-MM#1 ■ PR-MM#6 ■ PR-MM#2 ■ PR-MM#7 ■ PR-MM#3 ■ PR-MM#8 ■ PR-MM#4 ■ PR-MM#9 ■ PR-MM#5	Refined SR14 and SR14A Build Alternatives N/A E1, E1A, E2, and E2A Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: Less than Significant



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Darrell Readmond Trail (Proposed Extension)	Refined SR14 Build Alternative Impact PK#1: No Impact Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: No Impact	Refined SR14 and SR14A Build Alternatives No mitigation measures are required. E1, E1A, E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A
	SR14A Build Alternative Impact PK#1: No Impact Impact PK#2: Less than Significant Impact PK#3: No Impact Impact PK#4: No Impact		
	E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA		
Vasquez High School	Refined SR14 and SR14A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact	Refined SR14 and SR14A Build Alternatives No mitigation measures are required. E1, E1A, E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A
	E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA		



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Playgrounds at High Desert Middle School	Refined SR14 and SR14A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact Impact PK#4: No Impact E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14 and SR14A Build Alternatives No mitigation measures are required. E1, E1A, E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A
Acton Wash Wildlife Sanctuary	Refined SR14 and SR14A Build Alternatives No Impact/Outside of RSA E1, E1A, E2, and E2A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact	Refined SR14 and SR14A Build Alternatives N/A E1, E1A, E2, and E2A Build Alternatives No mitigation measures are required.	All Six Build Alternatives N/A
Vasquez Rocks Natural Area Park	Refined SR14 and SR14A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact Impact PK#4: No Impact E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14 and SR14A Build Alternatives No mitigation measures are required. E1, E1A, E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Pacific Crest Trail	Refined SR14 Build Alternative Impact PK#1: Less than Significant Impact PK#2: Significant Impact PK#3: Less than Significant Impact PK#4: No Impact SR14A, E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14 Build Alternative PR-MM#1 PR-MM#2 PR-MM#3 PR-MM#4 PR-MM#5 SR14A, E1, E1A, E2, and E2A Build Alternatives N/A	Refined SR14 Build Alternative Impact PK#1: N/A Impact PK#2: Less than Significant Impact PK#3: N/A Impact PK#4: N/A SR14A, E1, E1A, E2, and E2A Build Alternatives N/A
Santa Clara River Trail (Proposed Extension)	Refined SR14 and SR14A Build Alternatives Impact PK#1: Significant Impact PK#2: Significant Impact PK#3: Less than Significant Impact PK#4: No Impact E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14 and SR14A Build Alternatives PR-MM#1 PR-MM#5 PR-MM#2 PR-MM#6 PR-MM#3 PR-MM#7 PR-MM#4 PR-MM#9 E1, E1A, E2, and E2A Build Alternatives N/A	Refined SR14 and SR14A Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: N/A Impact PK#4: N/A E1, E1A, E2, and E2A Build Alternatives N/A
Angeles National Forest/San Gabriel Mountains National Monument	All Six Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: No Impact	All Six Build Alternatives No mitigation measures are required.	All Six Build Alternatives N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Rim of the Valley Trail (Proposed Extension)	Refined SR14, SR14A, E2, and E2A Build Alternatives Impact PK#1: Significant Impact PK#2: Significant Impact PK#3: No Impact Impact PK#4: No Impact E1 and E1A Build Alternatives No Impact/Outside of RSA	Refined SR14, SR14A, E2, and E2A Build Alternatives PR-MM#1 PR-MM#5 PR-MM#2 PR-MM#6 PR-MM#3 PR-MM#7 PR-MM#4 PR-MM#9 E1 and E1A Build Alternatives N/A	Refined SR14, SR14A, E2, and E2A Build Alternatives Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: N/A Impact PK#4: N/A E1 and E1A Build Alternatives N/A
Veterans Memorial Community Regional Park	Refined SR14 and SR14A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact Impact PK#4: No Impact E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14 and SR14A Build Alternatives No mitigation measures are required. E1, E1A, E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A
El Cariso Regional Park and Golf Course	Refined SR14 and SR14A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact Impact PK#4: No Impact E1, E1A, E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14 and SR14A Build Alternatives No mitigation measures are required. E1, E1A, E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Pacoima Wash Proposed Urban Greenway	Refined SR14, SR14A, E1, and E1A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact Impact PK#4: No Impact E2, and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14, SR14A, E1, and E1A Build Alternatives No mitigation measures are required. E2, and E2A Build Alternatives N/A	All Six Build Alternatives N/A
Playgrounds at Hillery T. Broadous Elementary School	Refined SR14, SR14A, E1, and E1A Build Alternatives Impact PK#1: No Impact Impact PK#2: Less than Significant Impact PK#3: No Impact Impact PK#4: No Impact E2 and E2A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives No mitigation measures are required. E2 and E2A Build Alternatives N/A	All Six Build Alternatives N/A
HHH Memorial Recreation Center and Pool	No Impact/Outside of RSA Refined SR14, SR14A, E1, and E1A Build Alternatives Impact PK#1: No Impact Impact PK#2: Less than Significant Impact PK#3: No Impact Impact PK#4: No Impact E2 and E2A Build Alternatives No Impact/Outside of RSA	Refined SR14, SR14A, E1, and E1A Build Alternatives No mitigation measures are required. E2 and E2A Build Alternatives N/A	All Six Build Alternatives N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Playgrounds at Charles Maclay Middle School	Refined SR14, SR14A, E1, and E1A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact	Refined SR14, SR14A, E1, and E1A Build Alternatives No mitigation measures are required. E2 and E2A Build Alternatives N/A	All Six Build Alternatives N/A
	E2 and E2A Build Alternatives No Impact/Outside of RSA		
Roger W. Jessup Park	Refined SR14, SR14A, E1, and E1A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact	Refined SR14, SR14A, E1, and E1A Build Alternatives No mitigation measures are required. E2 and E2A Build Alternatives N/A	All Six Build Alternatives N/A
	E2 and E2A Build Alternatives No Impact/Outside of RSA		
Hansen Dam Open Space	Refined SR14, SR14A, E1, and E1A Build Alternatives No Impact/Outside of RSA E2 and E2A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives N/A E2 and E2A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives N/A E2 and E2A Build Alternatives
	Impact PK#1: Significant Impact PK#2: Significant Impact PK#3: Significant Impact PK#4: Less than Significant	PR-MM#1 PR-MM#6 PR-MM#2 PR-MM#7 PR-MM#3 PR-MM#8 PR-MM#4 PR-MM#9 PR-MM#5	Impact PK#1: Less than Significant Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Tujunga Ponds Wildlife Sanctuary	Refined SR14, SR14A, E1, and E1A Build Alternatives No Impact/Outside of RSA E2 and E2A Build Alternatives Impact PK#1: No Impact Impact PK#2: No Impact Impact PK#3: No Impact Impact PK#4: No Impact	Refined SR14, SR14A, E1, and E1A Build Alternatives N/A E2 and E2A Build Alternatives No mitigation measures are required.	All Six Build Alternatives N/A
Stonehurst Park and Recreation Center	Refined SR14, SR14A, E1, and E1A Build Alternatives No Impact/Outside of RSA E2 and E2A Build Alternatives Impact PK#1: No Impact Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: No Impact	Refined SR14, SR14A, E1, and E1A Build Alternatives N/A E2 and E2A Build Alternatives No mitigation measures are required.	All Six Build Alternatives N/A
Playgrounds at Stonehurst Avenue Elementary School	Refined SR14, SR14A, E1, and E1A Build Alternatives No Impact/Outside of RSA E2 and E2A Build Alternatives Impact PK#1: No Impact Impact PK#2: Less than Significant Impact PK#3: Less than Significant Impact PK#4: No Impact	Refined SR14, SR14A, E1, and E1A Build Alternatives N/A E2 and E2A Build Alternatives No mitigation measures are required.	All Six Build Alternatives N/A



Resource	CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Sun Valley Pool/Sun Valley Park and Recreation Center	Refined SR14, SR14A, E1, and E1A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives	All Six Build Alternatives
	Impact PK#1: No Impact	No mitigation measures are required.	1477
	Impact PK#2: Less than Significant	E2 and E2A Build Alternatives	
	Impact PK#3: No Impact	N/A	
	Impact PK#4: No Impact		
	E2 and E2A Build Alternatives		
	No Impact/Outside of RSA		
Playgrounds at Roscoe Elementary School	Refined SR14, SR14A, E1, and E1A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives	All Six Build Alternatives
	Impact PK#1: No Impact	No mitigation measures are required.	1474
	Impact PK#2: Less than Significant	E2 and E2A Build Alternatives	
	Impact PK#3: No Impact	N/A	
	Impact PK#4: No Impact		
	E2 and E2A Build Alternatives		
	No Impact/Outside of RSA		
Playgrounds at Glenwood Elementary School	Refined SR14, SR14A, E1, and E1A Build Alternatives	Refined SR14, SR14A, E1, and E1A Build Alternatives	All Six Build Alternatives
	No Impact/Outside of RSA	No mitigation measures are required.	
	E2 and E2A Build Alternatives	E2 and E2A Build Alternatives	
	Impact PK#1: No Impact	N/A	
	Impact PK#2: Less than Significant		
	Impact PK#3: No Impact		
	Impact PK#4: No Impact		

Burbank Subsection

There are no parks, recreation, or open space resources in the Burbank Subsection.

CEQA = California Environmental Quality Act N/A = not applicable RSA = resource study area



3.15.10 United States Forest Service Impact Analysis

This section summarizes effects associated with each of the six Build Alternatives on open space and recreation areas within the ANF including lands within the ANF that are part of the SGMNM. Chapter 2, Alternatives, describes and maps the California HSR System facilities that would be within or immediately adjacent to the ANF, including the SGMNM. Figure 3.15-1 through Figure 3.15-3 map the parks, recreation, and open space resources within or immediately adjacent to the ANF.

3.15.10.1 Consistency with Applicable United States Forest Service Regulations

Appendix 3.1-B, USFS Policy Consistency Analysis, contains a comprehensive evaluation of relevant laws, regulations, plans, and policies relative to portions of each of the six Build Alternatives on USFS lands. Policies in the ANF Land Management Plan regarding recreation and open space resources help guide the management of recreational amenities and open space features and public use and access of the ANF. The six Build Alternatives include implementation of PK-IAMF#1, which will ensure that impacts related to recreation and open space resources do not interfere with USFS policies or the ability to meet planned goals. As such, all six Build Alternatives are considered consistent with these policies related to recreation and open space resources. The E1, E1A, E2, and E2A Build Alternatives would be inconsistent with certain land use designations; however, the land uses affected are not classified for recreational use. This is described in greater detail below.

3.15.10.2 Land Uses within the Angeles National Forest

The ANF Land Management Plan and the SGMNM Management Plan designate land uses within the ANF; many of these designated uses allow for a wide range of nonrecreational activities such as communication sites, major transportation corridors, major utility corridors, oil and gas exploration, and forestry (ANF 2014, USFS 2016). The ANF designated land uses are described below, along with permitted land use activities.

- Developed Area Interface—This land use permits development of communication sites, major transportation corridors, major utility corridors, roads, and developed facilities. As described in the Land Management Plan, this land use includes areas adjacent to communities, concentrated use areas, and developed sites. Based on the activities permitted in this land use, recreational use is not a primary use of the area. While the levels of human use and infrastructure are generally higher in this land use that in other land uses, the level of development varies between high development and no development. The areas with no development within this land use would be considered open space.
- Back Country—This land use permits development of communication sites, major transportation corridors, major utility corridors, roads, and developed facilities. As described in the Land Management Plan, this land use includes areas of the ANF that are generally undeveloped, with few roads. The management intent is to retain the natural character of this zone and to limit the level and type of development. Based on the activities permitted in this land use, recreational use is not a primary use of the area; however, it is considered open space.
- Wilderness—This land use permits some development of low-intensity land uses by exception. As described in the Land Management Plan, this land use includes Congressionally designated wildernesses. The management intent for this land use is continued administration for the use and enjoyment of the public and preservation of the wilderness character and natural conditions. Based on the activities permitted in this land use, the primary use of the area is recreational, but it is considered open space. However, the Build Alternatives' RSAs do not include this kind of land use.



- Back Country-Motorized Use Restricted—This land use permits the development of low-intensity land uses, communication sites, major utility corridors, roads, and developed facilities by exception. Based on the activities permitted in this land use, recreational use may not be the primary use of the area; however, it is considered open space.
- Back Country Non-Motorized—This land use permits the development of low-intensity uses
 and communication sites by exception. Based on the activities permitted in this land use,
 recreational use may not be the primary use of the area; however, it is considered open
 space.
- **Critical Biological**—This land use permits the development of low-intensity uses and communication sites by exception. Based on the activities permitted in this land use, the primary use of the area is for wildlife protection through the provision of natural habitat with limited human development, and would be open space, but not for recreation.
- Experimental Forest—This land use permits the development of low-intensity uses, communication sites, and roads by exception, and permits developed facilities for research purposes. Based on the activities permitted in this land use, recreational use may not be the primary use of the area, but it is considered open space. However, the Build Alternatives' RSAs do not include this kind of land use.

Construction Effects

Because certain Build Alternatives share alignments through the ANF, the Build Alternatives are discussed in pairs, as follows: The Refined SR14 and SR14A Build Alternatives, the E1 and E1A Build Alternatives, and the E2 and E2A Build Alternatives.

Refined SR14 and SR14A Build Alternatives

The Refined SR14 and the SR14A Build Alternatives would involve construction of a bored tunnel under the ANF, including portions of the SGMNM. The Refined SR14 and SR14A Build Alternatives would enter the ANF as an at-grade covered track. The Refined SR14 and SR14A Build Alternatives would continue at grade before entering a tunnel near the southwestern edge of the Vulcan Mine site. Temporary and permanent track and tunnel portal facilities, including adits and windows, would occupy approximately 216 acres of land within the ANF, including portions of the SGMNM (see Figure 3.15-8, Figure 3.15-10, and Figure 3.15-13). Approximately 127 of these 216 acres (inclusive of the ANF and the SGMNM) would be used for the deposition of construction spoils, restoring the natural topographic character within the Vulcan Mine site.⁶

These track and tunnel facilities would be entirely within the existing Vulcan Mine footprint, which is designated as Developed Area Interface. This land use designation allows for transportation-related infrastructure and is currently occupied by Vulcan Mine. Vulcan Mine is not open to the public and does not currently provide recreation or open space resources. As a result, land intended for recreational or open space use would not be affected by Refined SR14 and SR14A Build Alternative facilities at the Vulcan Mine site.

Construction of bored tunnels and operation of the Refined SR14 and SR14A Build Alternatives would require the installation of an adit, which would serve as an entry/exit point for tunnel-boring machines and for maintenance access during operations. The Refined SR14 and SR14A Build Alternatives include one adit option (SR14-A1) within the ANF. Two additional Refined SR14 and SR14A adit options are proposed outside of the ANF. SR14-A1 would require a temporary construction staging area on a privately owned in-holding within the ANF near Little Tujunga Canyon Road, which is not open to the public.

SR14-A1 would also require permanent electrical power lines, water lines, and the adit structure. The permanent adit structure would be within the private in-holding, and water utility easement corridors would be along existing roadways within the ANF. Electrical power lines could extend into land designated as Back Country. The Back Country land use designation limits human use

_

August 2022

⁶ The Authority has had ongoing discussions with the USFS regarding spoils deposition within the Vulcan Mine.



and infrastructure development from low to moderate levels and is not classified specifically for recreational uses but could be considered open space. Given this, construction of the Refined SR14 and SR14A Build Alternative adit facilities would not affect active recreation resources (i.e., campgrounds, trails, etc.) within the ANF, including the SGMNM. The Refined SR14 and SR14A Build Alternative adit facilities would also not affect open space resources, given that the permanent structure would be within a private in-holding and utilities to these sites would follow existing roads and existing utility corridors in the ANF.

E1 and E1A Build Alternatives

The E1 and E1A Build Alternatives include two adit options within the ANF (E1-A1 and E1-A2) to facilitate construction of a bored tunnel. These adits would require temporary construction staging areas within private in-holdings near Little Tujunga Canyon Road, which are not open to the public. Permanent adit structures would be within the private in-holdings, and water utility easement corridors would be located along existing roadways. Electrical power lines could extend into land designated as Back Country. The Back Country land use designation limits human use and infrastructure development from low to moderate levels and is not classified specifically for recreational uses; however, it would be considered open space where developed facilities are not present. Given this, construction of the E1 and the E1A Build Alternative adit facilities would not affect active recreation resources (e.g., campgrounds, trails) or open space, because it would occur within an in-holding, and utilities to these sites would follow existing roads and existing utility corridors in the ANF.

The E1 and E1A Build Alternatives also would require permanent utility lines, grading, and roadway realignment along Aliso Canyon Road within the ANF, including the SGMNM. Installation of these facilities would take place on portions of the ANF with the following land use designations: Back Country, Back Country—Non-Motorized, Back Country—Motorized Use Restricted, and Critical Biological. These land use designations are not intended specifically for recreational uses and do not currently provide developed recreational facilities such as campgrounds, trails, or picnic areas; however, this land use designation would be considered open space where developed facilities are not present. The E1 and E1A Build Alternative facilities along Aliso Canyon Road would not affect land within the ANF designated for recreational use, and, because they would follow the existing roadway alignment, they would not affect open space.

Because the parks, recreation, and open space resource RSA includes surface improvements but does not include areas where there are only bored tunnels (see Section 3.15.4.1), the overlap of this RSA with the tunnel construction RSA is limited. There is only one moderate/high hydrologic risk area within the E1 and the E1A Build Alternatives' RSA south of the improvements along Aliso Canyon Road. As described in Section 3.8, Hydrology and Water Resources, the probability would be minimal to none that hydrologic resources in the area would be affected after incorporation of IAMFs and Adaptive Management and Monitoring Plans.

E2 and E2A Build Alternatives

The E2 and E2A Build Alternatives include two adit options within the ANF (E2-A1 and E2-A2) to facilitate construction of a bored tunnel under the ANF, including the SGMNM. These adits would require temporary construction staging areas within private in-holdings near Little Tujunga Canyon Road and Gold Creek Road, which are not open to the public. Permanent adit structures would be located within the private in-holdings, and water utility easement corridors would travel along existing roadways within the ANF. However, electrical power lines could extend into land designated as Back Country or Back Country–Non-Motorized within the ANF. These land use designations limit human use and infrastructure development from low to moderate levels and are not classified specifically for recreational uses, but they would be considered open space where developed facilities are not present. Given the adits would be on in-holdings and utilities would follow existing roads and existing utility corridors, construction of the E2 and E2A Build Alternative adit facilities would not affect active recreation resources (e.g., campgrounds, trails) or open space within the ANF, including the SGMNM.



Similar to the E1and E1A Build Alternatives, the E2 and E2A Build Alternatives also would require permanent utility lines, grading, and roadway realignment along Aliso Canyon Road within the ANF, including the SGMNM, and would not affect land within the ANF designated for recreational use. Because they would follow the existing roadway alignment, they would not affect open space.

Similar to the E1 and the E1A Build Alternatives, there is one moderate/high hydrologic risk area within the E2 and E2A Build Alternatives' RSAs south of the improvements along Aliso Canyon Road. As described in Section 3.8, Hydrology and Water Resources, the probability would be minimal to none that hydrologic resources in the area would be affected after incorporation of IAMFs and Adaptive Management and Monitoring Plans.

Construction-Related Access, Noise, Vibration, Air Quality, and Visual Changes

There is no existing public access to the proposed Build Alternative construction areas within the ANF. Vehicular and pedestrian access to the ANF from all existing access points would be maintained during project construction and no detours would be proposed. Therefore, construction of the Refined SR14 and the SR14A Build Alternatives would not temporarily create a barrier for access or inhibit use of the ANF.

Visitors to the ANF would have unobstructed views from certain vantage points of construction activities associated with the adit options within the ANF under the Refined SR14, SR14A, E1, E1A, E2 and E2A Build Alternatives. Temporary construction staging areas would be visible from publicly accessible roadways, depending on the location and surrounding topography. Construction staging areas would introduce major visual changes to the immediate surroundings. However, these impacts would be temporary and disturbed areas would be restored after completion of construction.

Operations Effects

Changes to Character of the Angeles National Forest and the San Gabriel Mountains National Monument

The Build Alternative alignments cross the ANF, including the SGMNM, in underground tunnels; consequently, operations would not cause noise or vibration impacts at the surface except at areas surrounding portals (see discussion on noise effect surrounding portals near the ANF in Section 3.4, Noise and Vibration). Operations of permanent HSR facilities within the ANF, including adits and tunnel portals, could require occasional maintenance visits, but these activities would be limited, short in duration, and would not alter surrounding areas within the ANF, including the SGMNM. As a result, maintenance activities would not affect the character or usage of the ANF beyond those already discussed under construction impacts.

Increased or Decreased Use of Parks and Recreation Resources

None of the Build Alternatives would result in an increase in access or generate new users of the ANF. Stations for the Palmdale and Burbank Project Section would not be close to the ANF. Operations effects described in Impact PK#3 would not affect the capacity of the ANF to accommodate visitors or change the environment in a way that would reduce the value or recreational function of the ANF.