3.14 Agricultural Farmland and Forest Land

3.14.1 Introduction

This section describes the regulatory setting and affected environment for agricultural farmlands and forest lands, identifies California High-Speed Rail (HSR) System impacts on these lands, and describes impact avoidance and minimization features (IAMF) and prescribed mitigation measures that would avoid, minimize, or reduce these impacts.

Agricultural Farmland and Forest Land

This section evaluates existing policies and plans pertaining to agricultural farmland and forest land for the purposes of protecting open space areas and agricultural lands.

For the purposes of this analysis, Important Farmlands are lands designated by the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP) as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. These designations are defined by the United States Department of Agriculture (USDA) land inventory and monitoring criteria and modified for the State of California. Land zoned for agricultural use and land that is under Williamson Act or Farmland Security Zone (FSZ) Contracts are also considered to be Important Farmland in this analysis.

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines outlined in Section 3.14.4.5, this analysis uses the following definitions for forest land (established in [California Public Resources Code] (Cal. Public Res. Code), Section 12220(g)), timberland (as defined in Cal. Public Res. Code, Section 4526) and timberland production zones (TPZ) (defined in California Government Code, Section 51100(g)):

> *"Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.*
>
> *"Timberland" is defined as land, other than land owned by the federal government and land designated by the board as experimental forest land, available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.*
>
> *"Timberland production zones" are areas devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. A county board of supervisors may designate areas of timberland in their counties as timberland preserves. The zoning designation is known as a TPZ* (National Timber Tax Website 2018).

The following resource section in this Palmdale to Burbank Project Section Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) provides additional information related to agricultural farmland and forest lands:

- Section 3.13, Station Planning, Land Use, and Development, analyzes both temporary and permanent changes in land use that would result from project implementation.

The following sources were consulted to identify the presence or absence of agricultural farmland and forest lands throughout the Palmdale to Burbank Project Section:

- Local general plans and zoning ordinances
- County Assessor's records
- USDA Census of Agriculture
- California Department of Conservation FMMP
- County Farm Bureaus
- University of California Cooperative Extension Service (farm advisors)
- Natural Resources Conservation Service (NRCS)

- American Farmland Trust
- California Farmland Conservancy Program easements
- California Conservation Easement Registry

In addition, the following technical appendices provide more detailed information:

- Appendix 2-E, Impact Avoidance and Minimization Features (IAMF), lists IAMFs included as applicable in each of the Build Alternatives for purposes of the environmental impact analysis.
- Appendix 2-H, Regional and Local Policy Consistency Analysis, provides a Regional and Local Policy Consistency Table, which lists the agricultural and farmland conservation goals and policies applicable to the Palmdale to Burbank Project Section and notes the Build Alternatives' consistency or inconsistency with each.
- 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 Angeles National Forest (ANF) including the San Gabriel Mountains National Monument (SGMNM).

3.14.2 Laws, Regulations, and Orders

3.14.2.1 Federal

National Forest Management Act of 1976 (United States Code [U.S.C.], Title 16, Section 1600)

The National Forest Management Act of 1976 was designed to counter damage to natural ecosystems on national forest system lands. The Act put in place a system for forest management following several debates over the legality of clear-cutting forests. In an effort to protect national forests from excessive and destructive logging, Congress instructed the USFS to develop regulations that limit the size of clear-cuts, protect streams from logging, restrict the annual rate of cutting, and ensure prompt reforestation (16 U.S.C.1600).

The Antiquities Act of 1906 (U.S.C., Title 16, Sections 431-433)

Signed into law on June 8, 1906, the Antiquities Act authorizes the President of the United States to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases are confined to the smallest area consistent with proper care and management of the objects to be protected.

San Gabriel Mountains National Monument Management Plan

The purpose of this plan is to provide strategic direction and guidance for future management of the SGMNM. It provides a basis for informed decision making, while guiding resource management, practices, uses, and framework for project development. The monument plan does not include specific projects and activity decisions. The monument plan is adaptive in that it can be amended to update management direction based on new knowledge and information. The monument plan planning area includes all National Forest system lands within the boundaries of the National Monument in the northern and southeastern portions of the San Gabriel Mountains range, approximately 30 miles northeast of downtown Los Angeles in southern California. The changes associated with the ANF Land Management Plan and within the National Monument Management Plan will apply only to the SGMNM area.

Multiple Use and Sustained Act of 1960

Passed by Congress in 1960, this law authorizes and directs the Secretary of Agriculture to develop and administer the renewable resources of timber, range, water, recreation, and wildlife on the national forests for multiple use and sustained yield of the products and services. This is the first law to have the five major uses of national forests contained in one law equally, with no use greater than any other.

Federal Land Policy and Management Act of 1976

The Federal Land Policy Management Act makes it law that "public lands be retained in Federal ownership." This law is primarily responsible for protecting the quality of the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values of certain public lands, including USFS lands. Where appropriate, this law also protects and preserves public lands in their natural condition so these lands can provide food and habitat for fish and wildlife and domestic animals and provide for outdoor recreation and human occupancy and use.

Farmland Protection Policy Act of 1981 (7 U.S.C., Sections 4201–4209 and Code of Federal Regulations [C.F.R.], Title 7, Part 658)

The Farmland Protection Policy Act of 1981 (FPPA; U.S.C., Title 7, Section 4201 et seq.) is intended to protect farmland and requires federal agencies to coordinate with the USDA and the NRCS, if their activities may irreversibly convert farmland to nonagricultural use, either directly or indirectly. The stated purpose of the FPPA is to "minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses." The FPPA requires federal agencies to examine direct and indirect effects on farmland of a proposed action and its alternatives before approving any activity that would convert farmland to nonagricultural use. The USDA issues regulations to implement the FPPA (C.F.R., Title 7, Chapter VI, Part 658).

Important Farmland

For the purpose of this analysis, Important Farmland includes Prime Farmland, Farmland of Statewide Important, Unique Farmland, and Farmland of Local Importance.

For the purpose of the FPPA, "Important Farmland" includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance, as defined by Section 1540(c)(1) of the FPPA. Classification standards differ from state to state; each state may set its own criteria for classification in each category. Federal farmland classification criteria may differ from those developed by the California DOC, which are described in Section 3.14.2.3, State. Farmland subject to FPPA requirements includes forest land, pastureland, cropland, or other land, but does not include water or urban built-up land.

The FPPA exempts the following land types:

- Land not suitable for crops, such as rocky terrain or sand dunes
- Land where the project's right-of-way is entirely within a delineated urban area and where the project requires no Prime or Unique Farmland, nor any Farmland of Statewide or Local Importance
- Farmland that has already been converted to industrial, residential, or commercial use or is used for recreational activity

The FPPA applies to projects and programs sponsored or financed in whole or in part by the federal government. The FPPA implementing regulations spell out requirements to ensure that federal programs, to the extent practical, are consistent with state, local, and private programs and policies to protect farmland. The FPPA requires a rating of farmland conversion impacts based on land evaluation and site assessment criteria identified in 7 C.F.R. Part 658.5. These criteria are addressed through completion of a Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) form, which requires input from both the federal agency involved and the NRCS.

Land Management Plan for the Pacific Southwest Region (2005)

The USFS's *2005 Land Management Plan for the Pacific Southwest Region*, which includes the ANF, guides the agency in site-specific planning and decision-making. The mission of the USFS is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. The Land Management Plan defines the parameters for management but offers the flexibility to adapt decisions to accommodate rapidly changing resource conditions. The Land Management Plan is divided into three parts:

- *Part 1: Southern California National Forest Vision* directs the long-term vision and strategic management of the ANF (USDA 2005a)
- *Part 2: Angeles National Forest Strategy* describes the implementing objectives to achieve the vision described in Part 1 (USDA 2005b)
- *Part 3: Design Criteria for the Southern California National Forests* contains the guiding laws and standards during project planning and implementation (USDA 2005c)

According to Part 2 of the 2005 Land Management Plan, the ANF focuses on recreation and commercial land use. The ANF does not support any timber or grazing operations within the resource study area (RSA).

The Land Management Plan for the SGMNM (an expansion of the Land Management Plan for the ANF) is intended to provide for social, economic, and ecological sustainability and multiple uses in an integrated manner. The Land Management Plan for the SGMNM was developed to reduce or eliminate adverse impacts, as well as promote beneficial impacts, from plan implementation. Strategies include:

- Active management of recreation in concentrated use areas to improve recreational quality for an increasingly diverse population
- Improvement and maintenance of transportation connectivity including trails, and making the monument accessible through alternative transportation and public transportation
- Work with state and federal agencies to coordinate unauthorized mining activities and work with volunteers to document illegal mining activities
- Corrective actions when land management plan monitoring indicates that habitat conditions are degrading or destabilizing. Corrective actions may include, but are not limited to, restoration, modification of management actions, or other options suitable for the species or watershed affected.
- Work with Native American tribes, university staff, and biological and archaeological resources professionals to preserve and protect historical resources within the monument

United States Forest Service Authorities

The management of land designated as grazing land, farmland, or timberland production zones, as well as land meeting the CEQA definition of forest land within the ANF, including the SGMNM, is guided by several federal laws and their implementing regulations, as well as policies, plans, and orders. The primary laws governing Forest lands are the Federal Land Policy and Management Act, the National Forest Management Act, and the Antiquities Act of 1906. Appendix 3.1-B provides an analysis of the consistency of the six Build Alternatives with these laws, regulations, policies, plans, and orders.

3.14.2.2 State

California Forest Legacy Program Act of 2007 Cal. Public Res. Code, Section 12220

Under the Forest Legacy Program Act, "forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions. The Forest Legacy Program Act also allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

California Land Conservation Act of 1965 (California Government Code, Section 51200 et seq.) (also known as the Williamson Act)

The California Land Conservation Act of 1965, commonly known as the Williamson Act, provides a property tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land to agricultural and open space uses, and consistent uses defined in state law and local ordinances. A county or city establishes an agricultural preserve defining the boundary within which the local government will enter into contracts with landowners. Local governments calculate the property tax assessment based on the actual land use instead of the potential land value assuming full development, thereby providing a financial incentive to conserve agricultural or open space uses.

Williamson Act contracts are for 10 years and longer. The contract is renewed automatically each year, maintaining a constant 10-year contract, unless the landowner or local government files to initiate nonrenewal. Should that occur, the Williamson Act contract would terminate 9 years after the filing of a notice of nonrenewal. Only a landowner can petition for a contract cancellation. Tentative contract cancellations can be approved only after local government approval and the landowner pays a cancellation fee.

California has the following policies regarding public acquisition of and locating public improvements on lands in agricultural preserves and on lands under Williamson Act contracts:

- State policy is to avoid locating federal, state, or local public improvements and improvements of public utilities, and the acquisition of land, in agricultural preserves
- State policy is to locate public improvements that are in agricultural preserves on land other than land under Williamson Act contract
- State policy is that any agency or entity proposing to locate such an improvement, in considering the relative costs of parcels of land and the development of improvements, give consideration of the value to the public of land, particularly prime agricultural land, in an agricultural preserve

California Government Code Section 51295 provides that when an action to condemn or acquire a portion of a Williamson Act parcel is commenced, the existing contract shall be deemed null and void for all land to be condemned or acquired. As a result, the land actually taken will be removed from the contract. However, pursuant to this section, “under no circumstances shall land be removed that is not actually taken for a public improvement, except that when only a portion of the land or less than a fee interest in the land is taken or acquired, the contract may be cancelled with respect to the remaining portion or interest upon petition of either party and pursuant to the [standard cancellation] provisions of Article 5” (commencing with Section 51280).

In 1998, another option in the Williamson Act Program was established with the creation of FSZ contracts. An FSZ is an area created within an agricultural preserve by a county board of supervisors upon the request of a landowner or group of landowners. FSZ contracts offer landowners greater property tax reductions and have a minimum initial term of 20 years. Like Williamson Act contracts, FSZ contracts renew annually unless an owner files a notice of nonrenewal. No Williamson Act or FSZ contract lands lie within the agricultural farmland and forest land RSA.

Farmland Mapping and Monitoring Program

The California FMMP is the only statewide agricultural land use inventory conducted on a regular basis. The California DOC administers the FMMP, under which it maintains an automated map and database system to record changes in agricultural land use. The FMMP categories include agricultural and nonagricultural land, as described below; and each category is defined according to USDA land inventory and monitoring criteria, as modified for California:

- **Prime Farmland**—Prime Farmland is land with the best combination of physical and chemical features to sustain long-term agricultural crop production. This land has the soil quality, growing season, and moisture supply necessary to produce sustained high yields. Soil must meet the physical and chemical criteria determined by the NRCS. Prime Farmland must have been used for production of irrigated crops at some time during the 4 years prior to the FMMP's mapping date.
- **Farmland of Statewide Importance**—Farmland of Statewide Importance is similar to Prime Farmland but with minor differences, such as having greater slopes or soils with a lesser ability to store moisture. Farmland of Statewide Importance must have been used for production of irrigated crops at some time during the 4 years prior to the mapping date.
- **Unique Farmland**—Unique Farmland has lesser-quality soils than Prime Farmland or Farmland of Statewide Importance. Unique Farmland is used for producing the state's leading agricultural crops. This land is typically irrigated but may include non-irrigated orchards or vineyards found in some climatic zones. Unique Farmland must have been used for crops at some time during the 4 years prior to the mapping date.
- **Farmland of Local Importance**—Farmland of Local Importance is farmland that is important to the local agricultural community as determined by each county's board of supervisors and local advisory committees.
- **Grazing Land**—Grazing Land represents land on which existing vegetation is suited to livestock grazing. This category was developed by the DOC in cooperation with the California Cattlemen's Association, the University of California Cooperative Extension, and other groups interested in the extent of grazing activities. Grazing Land is not considered Important Farmland for the purposes of CEQA because there are no unique soil characteristics underlying this classification.
- **Urban and Built-Up Land**—Urban and Built-Up Land is land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Urban and Built-Up Land represents land used for residential, industrial, commercial, and institutional uses; public administrative purposes; railroad and other transportation yards; cemeteries; airports; golf courses; sanitary landfills; sewage treatment; water control structures; and other developed purposes.
- **Other Land**—Other Land is land not included in any other mapping category. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock; poultry or aquacultural facilities; and waterbodies smaller than 40 acres. Vacant and nonagricultural land surrounded by urban development and greater than 40 acres is mapped as Other Land.

The FMMP focuses on agricultural land that has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained yields of crops. Farmland of Local Importance can cover a broader range of agricultural uses and is initially identified by a local advisory committee convened in each county by the FMMP in cooperation with the NRCS and the county board of supervisors.

California Farmland Conservancy Program Act of 1995 (Cal. Public Res. Code, Sections 10200–10277)

This policy provides a mechanism for the DOC to establish agricultural conservation easements on farmland. "Agricultural conservation easement" means an interest in land, less than fee-simple interest, which represents the right to prevent the development or improvement of the land for any purpose other than agricultural production. The easement is granted for the California Farmland Conservancy Program by the landowner of fee-simple interest in the land to a local government, nonprofit organization, resource conservation district, or regional park or open-space district (or regional park or open-space authority) that has the conservation of farmland among its stated purposes or as expressed in the entity's locally adopted policies. It is granted in perpetuity and remains with the land. The landowner may make a request to the DOC that the easement be

reviewed for possible termination 25 or more years from the date of sale of the agricultural conservation easement. There are no conservation easements on farmland within the California HSR System area.

California Timberland Productivity Act of 1982

Under this act, "timberland" means privately owned land, or land acquired for state forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and consistent uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre.

"Timberland production zone (TPZ)" means an area that has been zoned pursuant to Sections 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and consistent uses. With respect to the general plans of cities and counties, "timberland preserve zone" means "timberland production zone," as defined by Cal. Public Res. Code, Section 51104(g)).

The California Timberland Productivity Act of 1982 seeks to "discourage premature or unnecessary conversion of timberland to urban and other uses; discourage expansion of urban services into timberland; and encourage investment in timberlands based on reasonable expectation of harvest." The California Timberland Productivity Act established the TPZ regulatory tool and describes the powers and duties of local governments in protecting timberlands. Similar to the Williamson Act, the Timberland Productivity Act provides a property tax incentive for landowners to voluntarily enroll in voluntary timber production land contracts with corresponding local governments. The contract restricts the land to timber production and open space uses, and consistent uses defined in state law and local ordinances. Timberland production contracts are for 10 years and longer. A county or city establishes a timberland preserve through zoning that defines the boundary within which the local government will enter into contracts with landowners. There are no TPZs within the agricultural farmland and forest land RSA.

Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375)

Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008), provides a planning process to coordinate community development and land use planning with regional transportation plans (RTP) in an effort to reduce sprawling land use patterns and dependence on private vehicles, thereby reducing vehicle miles traveled and greenhouse gas emissions associated with vehicle miles traveled. Senate Bill 375 is a major tool being used to meet the goals in Assembly Bill 32, the Global Warming Solutions Acts (Chapter 488, Statutes of 2006). Under Senate Bill 375, the California Air Resources Board has set greenhouse gas emission reduction targets for 2020 and 2035 for the metropolitan planning organizations in the state. The 2005–2020 reduction target for the Los Angeles Basin is an 8 percent reduction in per capita greenhouse gas emissions; the 2005–2035 target is a 19 percent reduction. Each metropolitan planning organization must then prepare a "sustainable communities strategy" as part of the RTP that meets the greenhouse gas reduction emission reduction targets. If the RTP cannot meet the targets, then the metropolitan planning organization must adopt an alternative planning strategy instead of the sustainable communities strategy. The alternative planning strategy is adopted separately from the RTP and does not need to reflect the fiscal constraints that otherwise apply to the transportation investments identified in the RTP.

3.14.2.3 Regional and Local

Table 3.14-1 provides an overview of the regional and local planning documents that include goals and objectives related to the preservation and protection of agricultural farmland and forest land.

Table 3.14-1 Regional and Local Plans and Policies

Regional/Local Plan	Summary
Los Angeles County	
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, including goals and policies to encourage the preservation and sustainable utilization of agricultural land, agricultural activities, and compatible uses within designated agricultural resource areas.
Antelope Valley Area Plan (2015)	This plan covers an approximately 1,800-square-mile area bounded by the Kern County border to the north, the Ventura County border to the west, the ANF (inclusive) to the south, and the San Bernardino County border to the east. The plan excludes the cities of Lancaster and Palmdale. 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.
Santa Clarita Valley Area Plan (2012)	The Land Use and Conservation and Open Space elements of the Santa Clarita Valley Area Plan mimic those contained in the Land Use and Conservation and Open Space elements of the City of Santa Clarita General Plan, and include policies aimed at preserving and protecting important agricultural resources, forested areas, and agricultural lands.
Los Angeles County Zoning Ordinance (2009)	Chapter 22.24 – Rural Zones, of the Los Angeles County Zoning Ordinance designates agricultural zones and establishes policies that govern these zones.
City of Palmdale	
City of Palmdale Zoning Ordinance (2019)	Chapter 3 – Agricultural Zones, of the City of Palmdale Zoning Ordinance establishes agricultural zones and the policies that govern these zones.

Source: Los Angeles County, 2009, 2012, 2015a, 2015b; City of Palmdale, 2019

3.14.3 Consistency with Plans and Laws

As indicated in Section 3.1.4.3, Consistency with Plans and Laws, CEQA and the 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 California High-Speed Rail Authority (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 California HSR System so that it is consistent with land use and zoning regulations. For example, the proposed Build Alternatives would incorporate IAMFs that require the contractor to prepare a plan to demonstrate how impacts of construction on agricultural lands would be maintained below applicable standards.

Appendix 2-H provides a Regional and Local Policy Consistency Table, which lists the agricultural farmland and forest land goals and policies applicable to the Palmdale to Burbank Project Section and notes the Build Alternatives' consistency or inconsistency with each. The Authority reviewed five plans and ordinances. Each of the Build Alternatives is inconsistent with three policies and two ordinances. Those that are inconsistent with the Palmdale to Burbank Project Section Build Alternatives are discussed below:

- **Los Angeles County General Plan 2035 Policy LU 6.3**—*Encourage low density and low intensity development in rural areas that is consistent with rural community character, preserves open space, and conserves agricultural land.*
  - Inconsistent for all six Build Alternatives. The Build Alternatives may convert parcels that allow for agricultural use lands (as designated in the General Plan) to nonagricultural uses. Refer to Section 3.13, Station Planning, Land Use, and Development, for more information on land uses.
- **Los Angeles County Antelope Valley Area Plan Policy LU 1.3**—*Maintain the majority of the unincorporated Antelope Valley as Rural Land, allowing for agriculture, equestrian and animal-keeping uses, and single-family homes on large lots.*
  - Inconsistent for all six Build Alternatives. The Build Alternatives may convert parcels that allow for agricultural use lands (e.g., Rural Land) to nonagricultural uses. Refer to Section 3.13, Station Planning, Land Use, and Development, for more information on land uses.
- **Los Angeles County Antelope Valley Area Plan Policy LU 2.3**—*Except within economic opportunity areas, limit the amount of potential development in Agricultural Resource Areas, including important farmlands designated by the State of California and historical farmland areas, through appropriate land use designations with very low residential densities, as indicated in the Land Use Policy Map of this Area Plan.*
  - Inconsistent for the Refined SR14 and SR14A Build Alternatives. The Refined SR14 and SR14A Build Alternatives have the potential to affect a portion of Important Farmland designated by the State of California in the Area Plan. The Refined SR14 and SR14A Build Alternatives would avoid Agricultural Resource Areas defined by the Los Angeles County Antelope Valley Area Plan. In contrast, the E1, E1A, E2, and E2A Build Alternatives would be consistent. The E1, E1A, E2, and E2A Build Alternatives would avoid impacts on important and historical farmland areas designated by the Los Angeles County Antelope Valley Area Plan and the State of California.
- **Los Angeles County Zoning Ordinance Chapter 22.24 – Rural Zones**—Chapter 22.24 designates agricultural zones and establishes policies that govern these zones.
  - Inconsistent for all six Build Alternatives. The Build Alternatives have the potential to convert parcels that allow for agricultural use lands to nonagricultural uses. Refer to Section 3.13, Station Planning, Land Use, and Development, for more information on land uses.
- **City of Palmdale Zoning Ordinance Chapter 3 – Agricultural Zones**—Chapter 3 establishes agricultural zones and the policies that govern these zones.
  - Inconsistent for all six Build Alternatives. The Build Alternatives have the potential to convert parcels that allow for agricultural use lands to nonagricultural uses. Refer to Section 3.13, Station Planning, Land Use, and Development, for more information on land uses.

Despite the inconsistencies, the project is consistent with the majority of regional and local policies and plans. Although it may not be possible to meet all local standards on the management and preservation of agricultural lands, as outlined in Appendix 2-H, IAMFs and mitigation measure AG-MM#1 would generally minimize impacts on agricultural lands and would ultimately meet the overall objectives of the local policies.

3.14.4 Methods for Evaluating Impacts

The evaluation of impacts on agricultural farmland and forest land resources is a requirement of the National Environmental Policy Act (NEPA) and CEQA. The following sections summarize the agricultural farmland and forest land areas (within the RSA) and the methods that were used to analyze impacts on agricultural farmland and forest land resources. Next, information about the existing agricultural environment within the RSA, and more specifically within each of the Build Alternative footprint and buffer areas, was gathered through geographic information system (GIS) tools. Project-related impacts resulting in the conversion of agricultural lands and forest lands to nonagricultural and non-forest uses during construction and operations of each of the Build Alternatives were then calculated and assessed based on the CEQA thresholds identified in Section 3.14.4.5.

3.14.4.1 Definition of Resource Study Areas

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 for agricultural farmland encompasses the areas where direct and indirect impacts could result in the conversion of Important Farmland to a nonagricultural use. Direct impacts include temporary use and permanent conversion of Important Farmland or forest land and would be confined to the construction footprint of each of the Build Alternatives. Indirect impacts could increase the amount of Important Farmland conversion beyond that needed for the project construction footprint. These indirect impacts could include severance of Important Farmland parcels and effects of HSR-generated wind on insect pollination or aerial pesticide applications. The RSA for indirect impacts on agricultural farmland and forest land comprises the footprint of the six Build Alternatives including a 100-foot buffer beyond the alignment centerline.

3.14.4.2 Impact Avoidance and Minimization Features

IAMFs are project features that 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, Project Impact Avoidance and Minimization Features.

The following IAMFs were incorporated into the agricultural land and forest land analysis:

- **AG-IAMF#1:** Restoration of Important Farmland Used for Temporary Staging Areas—This IAMF describes the Authority's commitment to ensuring the Contractor prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation and successful achievement of restoration for temporary impacts prior to any ground-disturbing activities at the site of a temporary construction staging area (CSA) located on Important Farmland. Actions shall include removing and stockpiling the top 18 inches of soil for replacement on site during restoration activities.
- **AG-IAMF#2**: Permit Assistance—This IAMF describes the Authority's commitment to assign a representative for each confined animal facility owner prior to disturbance-causing activities affecting any segment of a confined animal facility. The representative will act as a single point of contact during the process of obtaining new or amended permits or other regulatory compliance necessary to the continued operation or relocation of the facility.
- **AG-IAMF#3**: Farmland Consolidation Program—This IAMF describes the Authority's commitment to establishing and administering a farmland consolidation program to sell remnant parcels to neighboring landowners for consolidation with adjacent farmland properties. The program will assist the owners of remnant parcels in selling those remnants to adjacent landowners, upon request. The goal of the program is to provide for continued agricultural use on the maximum feasible amount of remnant parcels that otherwise may not be economic to farm.

- **AG-IAMF#4**: Notification to Agricultural Property Owners—This IAMF describes the Authority's commitment to providing written notification to agricultural property owners or leaseholders immediately adjacent to the disturbance limits for the California HSR System section prior to the start of any construction activity adjacent to farmland.
- **AG-IAMF#5**: Temporary Livestock and Equipment Crossings—This IAMF describes the Authority's commitment to coordinating with agricultural property owners or leaseholders to provide temporary livestock and equipment crossings to minimize impacts on livestock movement, as well as routine operations and normal business activities, during project construction. This coordination will occur prior to the start of any construction activity adjacent to farmland.
- **AG-IAMF#6**: Equipment Crossings—This IAMF describes the Authority's commitment to minimizing impediments to routine agricultural operations and normal business activities during operation of the California HSR System. During final design, and in coordination with the property owners of land in use for agricultural operations, the Authority shall finalize the realignments of affected access roads to provide equipment crossings to minimize impediments to routine agricultural operations and normal business activities that may result from long-term project operation.

Other resource IAMFs applicable to impacts on agricultural lands and forest lands include:

- **PUE-IAMF#2**: Irrigation Facility Relocation
- **PUE-IAMF#3**: Public Notifications
- **PUE-IAMF#4**: Utilities and Energy
- **TR-IAMF#2**: Construction Transportation Plan

This environmental impact analysis considers these IAMFs as part of the project design. Within Section 3.14.6, Environmental Consequences, each impact narrative describes how these project features are applicable and, where appropriate, effective at avoiding or minimizing potential impacts.

3.14.4.3 Methods for NEPA and CEQA Impact Analysis

Overview of Impact Analysis

This section describes the sources and methods the Authority used to analyze project impacts of each of the Build Alternatives on agricultural farmland and forest land. 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.

FMMP spatial data provided by the DOC for Los Angeles County identifies subcategories of Important Farmland (Section 3.14.2.2). The Authority obtained spatial data for agricultural lands protected under Williamson Act and FSZ contracts for Los Angeles County. This information provided the basis for calculating acreages associated with direct and indirect impacts (i.e., temporary use of Important Farmland, and permanent conversion of Important Farmland) using GIS software.

Direct Impacts on Important Farmland

There are two types of direct impacts on Important Farmland: temporary use and permanent conversion of Important Farmland. Temporary use of Important Farmland would occur as a result of temporary construction activities. Permanent conversion of Important Farmland would occur from construction of permanent features of the six Build Alternatives, and impacts would continue after temporary construction activities have ceased.

Temporary Impacts on Important Farmland

Construction of the California HSR System would require temporary CSAs located within the footprint for the six Build Alternatives. Temporary CSAs could be located in areas designated as Important Farmland. This temporary use would result in a direct impact that could persist for the duration of construction activities. To calculate the direct temporary use of Important Farmland,

analysts used GIS software to measure the amount of Important Farmland within the temporary construction impact area of the footprint for each Build Alternative.

Permanent Conversion of Important Farmland to a Nonagricultural Use

Construction of the California HSR System would result in direct permanent impacts where Important Farmland would be converted to a nonagricultural use. This analysis assumed that all Important Farmland located within the permanent impact area of the six Build Alternatives' footprint would be permanently converted to a nonagricultural use. GIS software was used to calculate the direct permanent conversion of Important Farmland to nonagricultural use for each Build Alternative by overlaying the most recent spatial data available from the DOC's FMMP with the permanent impact area of the project footprint to determine the acreage of conversion.

In addition to the direct impact analysis calculated using GIS software, NRCS staff helped determine the farmland conversion impact rating of each Build Alternative using Form NRCS-CPA-106, in accordance with the FPPA. The NRCS-CPA-106 form measures the impact of farmland conversion according to criteria such as area of nonurban use, percentage of the transportation corridor being farmed, protected farmland, size of the farm, and creation of nonfarmable land, among other criteria. The maximum possible score on the Land Evaluation and Site Assessment portion of the NRCS-CPA-106 form is 260 points. If the score is less than 160 points, the FPPA requires no further evaluation. If the score is greater than 160, the act requires consideration of alternatives that avoid or minimize farmland impacts. The FPPA, however, does not mandate the adoption of such alternatives.

Indirect Impacts on Important Farmland

In addition to calculating the total acreage of Important Farmland directly converted to nonagricultural use by the six Build Alternatives, impacts on Important Farmland adjacent to, but not within, each Build Alternatives' footprint was examined. These are referred to as indirect impacts. Indirect impacts may increase the amount of Important Farmland permanently converted to nonagricultural use beyond that which is converted within the Build Alternatives' footprint. Indirect impacts on Important Farmland were assessed in the following two ways:

1. Indirect impacts that would result in a noneconomic remnant parcel or Important Farmland resulting in the conversion of Important Farmland to a nonagricultural use. This type of indirect impact was evaluated using the process, as described in the section immediately below.
2. Indirect impacts that might disrupt certain agricultural activities, such as disruption to agricultural infrastructure (irrigation canals), interference with aerial spraying activities, and wind-induced impacts.

Noneconomic Remnant Parcels of Important Farmland

Remnant parcel refers to a remainder or portion of a parcel of land that has little market value based on size, shape, or condition. GIS software was used to identify parcels of Important Farmland that would be divided and result in remnant parcels. All temporary and permanent features of the project were included in this analysis. If a parcel would measure 20 acres or less following division, it would be considered a remnant parcel and there would be an impact. As no remnant parcels would be created by the Build Alternatives, no further analysis is necessary.

Disruption to Agricultural Infrastructure Serving Important Farmland

Disruption to agricultural infrastructure through interruptions of utility service and road closures could result in the conversion of Important Farmland if agricultural profitability is affected. GIS software was used to identify the number of crossings of major utilities, such as electric powerlines and irrigation canals. This information was used to assess the potential for construction of each of the Build Alternatives to result in utility interruptions that could lead to conversion of Important Farmland. Analysis also evaluated road closures resulting from construction of each of the Build Alternatives and compared to existing access and existing

access patterns to assess whether such road closures could increase utility service response times such that they could result in impacts on Important Farmland.

Interference with Aerial Spraying Activities

The height and location of aerial structures (elevated guideways), communication towers, telecommunication microwave towers, and power/transmission structures associated with the six Build Alternatives were compared to existing structures in the agricultural farmland and forest land RSA to determine whether the construction of these new structures would obstruct aircraft movement to the extent that they would interfere with aerial spraying activities.

Williamson Act and Farmland Security Zone Contracts

GIS software and FMMP data were used to identify parcels containing Important Farmland under Williamson Act and FSZ contract. If such lands were present in the agricultural farmland and forest land RSA, analysis of impacts would be necessary. Furthermore, the project would be expected to comply with required procedures including notifying the DOC of the impacts on the parcels under Williamson Act and FSZ contract and notifying the respective counties in which the property is located. As there are no lands protected by Williamson Act or FSZ contracts within the RSA, no further analysis is necessary.

Wind-Induced Effects

Wind-induced effects were evaluated by comparing wind speeds generated within and on the edges of the HSR right-of-way to wind speeds that could affect common agricultural activities such as insect pollination or aerial pesticide applications. Only Important Farmland adjacent to the HSR right-of-way has the potential to be affected by HSR-induced wind. Wind speeds that would be generated by the California HSR System were estimated and summarized in the technical memorandum, *Potential Impacts from Induced Winds for High Speed Trains* (Appendix 3.4-B).

Impacts on Forest Land and Timberland

This impact analysis evaluates three different types of forest and timber land, which are discussed below.

Forest Land

As established in Cal. Public Res. Code, Section 12220(g), “[f]orest land is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” Assessment of forest land entailed an evaluation of satellite imagery throughout the six Build Alternative agricultural farmland and forest land RSA to identify areas that support approximately 10 percent native tree cover, based on existing vegetative cover. Although the Central Subsection for each Build Alternative includes portions of the ANF, including the SGMNM, most of this land does not qualify as forest land per the definition above because it does not support 10 percent native tree cover.

Timberland

As defined in Cal. Public Res. Code, Section 4526, “timberland” means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the State Board of Forestry and Fire Protection on a district basis. Assessment of timberland locations within the RSA was performed through evaluation of data obtained from the California Department of Fish and Wildlife Timber Conservation Program (CDFW 2019). This assessment determined that there are no areas of private timberland within the agricultural farmland and forest land RSA. Therefore, no further analysis is necessary.

Designated Timberland Production Zones

As defined by Cal. Public Res. Code, Section 51104(g)), "timberland production zones" are areas devoted to and used for growing and harvesting timber, or for growing and harvesting timber and consistent uses. A county board of supervisors may designate areas of timberland in their counties as timberland preserves. The zoning designation is known as a TPZ (National Timber Tax Website 2018). Official TPZ locations were identified through review of county, regional, and local land use plans; policies; and zoning ordinances. Areas of the ANF, including the SGMNM, are within Los Angeles County. However, none of these areas are designated, managed, or leased for timber production. This evaluation determined there are no other areas within the agricultural farmland and forest land RSA designated for timberland production. Therefore, no further analysis is necessary.

3.14.4.4 Method for Evaluating Impacts under NEPA

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.

3.14.4.5 Method for Determining Significance under CEQA

The Authority is using the following thresholds to determine if a significant impact on agricultural farmland and forest land would occur as a result of the project. CEQA requires that an EIR identify the significant environmental impacts of a project (CEQA Guidelines Section 15126). One of the primary differences between NEPA and CEQA is that CEQA requires a significance determination for each impact using a threshold-based analysis. By contrast, under NEPA, significance is used to determine whether an EIS will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." Accordingly, Section 3.14.9, CEQA Significance Conclusions, summarizes the significance of the environmental impacts on agricultural lands and forest lands for each CEQA threshold for each Build Alternative. A significant impact is one that would:

- Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Locally Important Farmland (collectively "Important Farmland") as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to a nonagricultural use
- Conflict with existing zoning for agricultural use, or a Williamson Act contract, in a manner that would result in conversion of Important Farmland to nonagricultural use
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Cal. Public Res. Code, Section 12220(g)), timberland (as defined in Cal. Public Res. Code, Section 4526), or timberland zoned Timberland Production (as defined by California Government Code, Section 51104(g))
- Result in the loss of forest land or conversion of forest land to non-forest use
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Important Farmland to nonagricultural use or conversion of forest land to non-forest use

3.14.5 Affected Environment

3.14.5.1 Regional Overview

Agricultural land is an important resource in California. However, agricultural land in Los Angeles County is limited, and much of it has been developed with nonagricultural uses associated with urban development over the years. There is little Important Farmland and Grazing Land in Los Angeles County as a whole, and recent development within Los Angeles County has further reduced the amount of farmland countywide. The increase in acreage of designated Grazing Land between 2010 and 2016 was primarily due to land left idle for several FMMP update cycles. Despite this increase, Table 3.14-2 shows that the amount of Local Important, Prime, Statewide Importance, and Unique Farmland (assessed under Important Farmland, collectively) throughout Los Angeles County declined between 2010 and 2016.

Table 3.14-2 Farmland Conversion in Los Angeles County (2010–2016)

Farmland Type	2010 (acres)	2016 (acres)	Net Change in Acreage
Local Important	6,855	3,045	-3,810
Prime	30,876	22,613	-8,263
Statewide Importance	952	770	-182
Unique Farmland	1,131	962	-169
Important Farmland Subtotal[1]	**39,814**	**27,390**	**-12,424**
Grazing Land	231,475	239,037	+7,562
Total Agricultural Farmland	**271,289**	**266,427**	**-4,862**

Source: FMMP 2016c
[1]Important Farmland comprises Farmland of Local Importance, Prime Farmland, Farmland of Statewide Importance, and Unique Farmland.
FMMP = Farmland Mapping and Monitoring Program

According to the FMMP, most of the RSA is considered Urban and Built-Up Land (Figure 3.14-1). No Williamson Act, Farmland Security Zone, Timberland Protection, or other agricultural preservation contract lands are located within the agricultural farmland and forest land RSA. Given that there is very little Important Farmland in Los Angeles County, the Los Angeles County 2035 General Plan states that “agricultural land is viewed as a nonrenewable resource that needs to be protected from conversion and encroachment of inconsistent uses.”

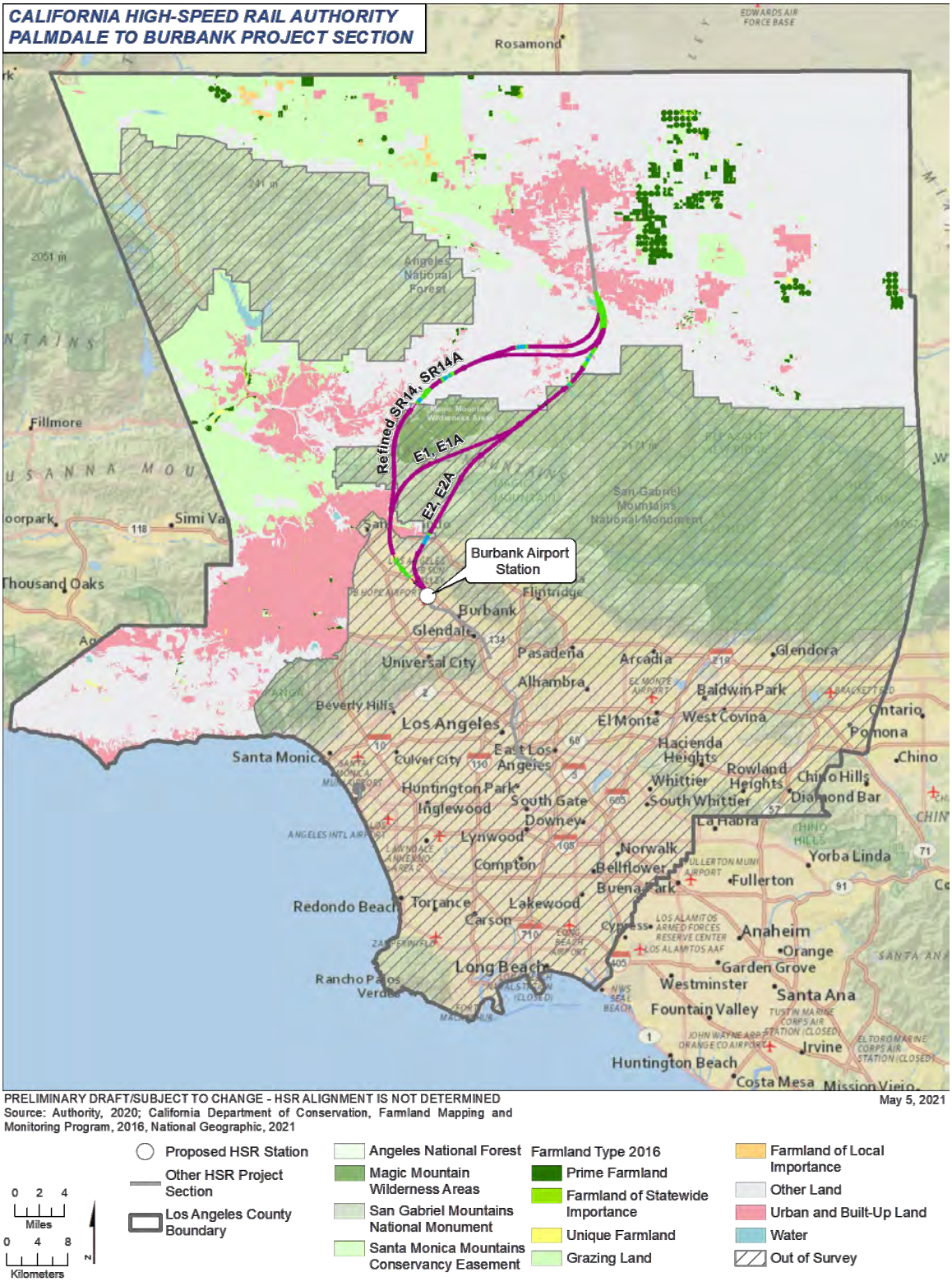

Figure 3.14-1 Los Angeles County Farmland

Comparatively, Grazing Land is defined by the FMMP as "land on which the existing vegetation is suited to the grazing of livestock." There are no physical qualifications, such as soil quality, for land to qualify as Grazing Land beyond livestock grazing on the land. As such, livestock could be moved to other open lands without impacting animal husbandry operations; however, Important Farmlands cannot easily be replaced due to the soil property requirements. This section discusses the affected environment related to agricultural farmland and forest lands within the RSA. This section discusses the affected environment related to agricultural farmland and forest lands within the agricultural and forest land RSA, which are limited to the Central and Burbank Subsections.

3.14.5.2 Central Subsection

Due to the divergent alignments of the six Build Alternatives within the Central Subsection, characteristics of the agricultural farmland and forest land within the RSA differs substantially depending on the Build Alternative. Within the Central Subsection, each of the Build Alternatives would traverse through the ANF, including the SGMNM, for different lengths. However, many areas within the ANF, including the SGMNM, do not meet the CEQA definition of forest land described in Section 3.14.4, Method for Evaluating Impacts.

As depicted in Table 3.14-3 through Table 3.14-6 and discussed below, the agricultural farmland and forest land RSA for each of the Build Alternatives in the Central Subsection would include parcels of Important Farmland. Nonagricultural uses within these agricultural farmland and forest land RSAs include residential areas and several small equestrian facilities that are generally attached to homes located within the residential areas.

There are areas within the Central Subsection that could be considered forest land as defined by Cal. Public Res. Code Section 12220(g); however, the majority of the RSA crossing the ANF, including the SGMNM, does not qualify as forest land under this definition.

Refined SR14 and SR14A Build Alternatives

Agricultural Farmland

Table 3.14-3 summarizes the types of agricultural farmland located within the Refined SR14 and SR14A Build Alternative agricultural farmland and forest land RSA. Figure 3.14-2 through Figure 3.14-7 depict this information for the Refined SR14 and SR14A Build Alternatives.

Table 3.14-3 Agricultural Farmland within the Refined SR14 and SR14A Build Alternative Resource Study Area in the Central Subsection

Type of Agricultural Farmland	Resource Study Area (acres)	
	Refined SR14	SR14A
Important Farmland	1	<1
Grazing Land	67	39
Local and Unique Farmland	None	None

Source: FMMP, 2016a
Acreage is rounded to the nearest whole number.
FMMP = Farmland Mapping and Monitoring Program
< = less than

The only Important Farmland located within the Refined SR14 and SR14A Build Alternative agricultural farmland and forest land RSA is depicted on Figure 3.14-2. This Important Farmland consists of 1 acre of an approximately 9-acre vineyard, immediately east of the existing Metrolink line near the intersection of East Carson Mesa Road and Katee Lane.

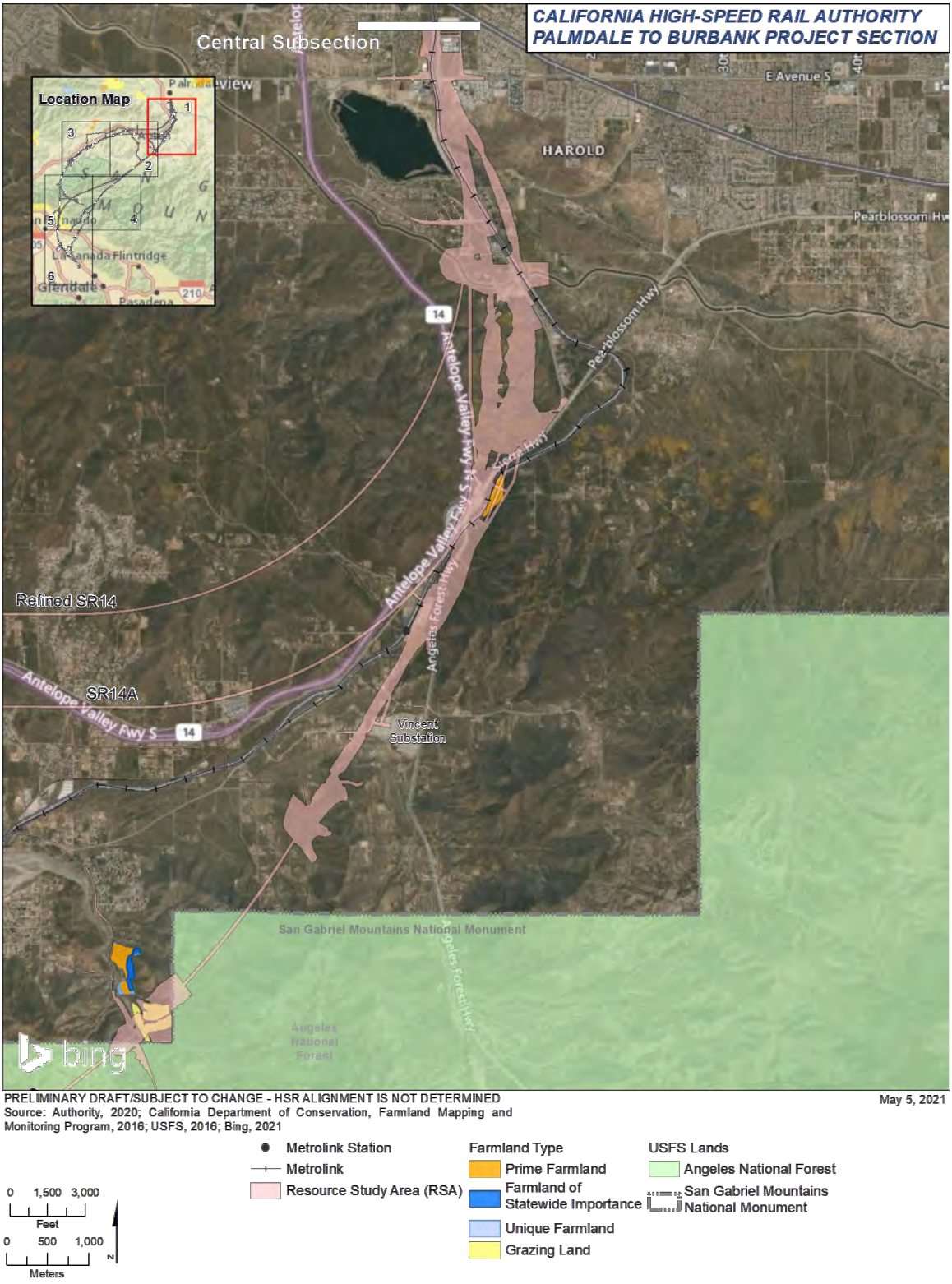

Figure 3.14-2 Agricultural Farmland Resource Study Area (Map 1 of 6)

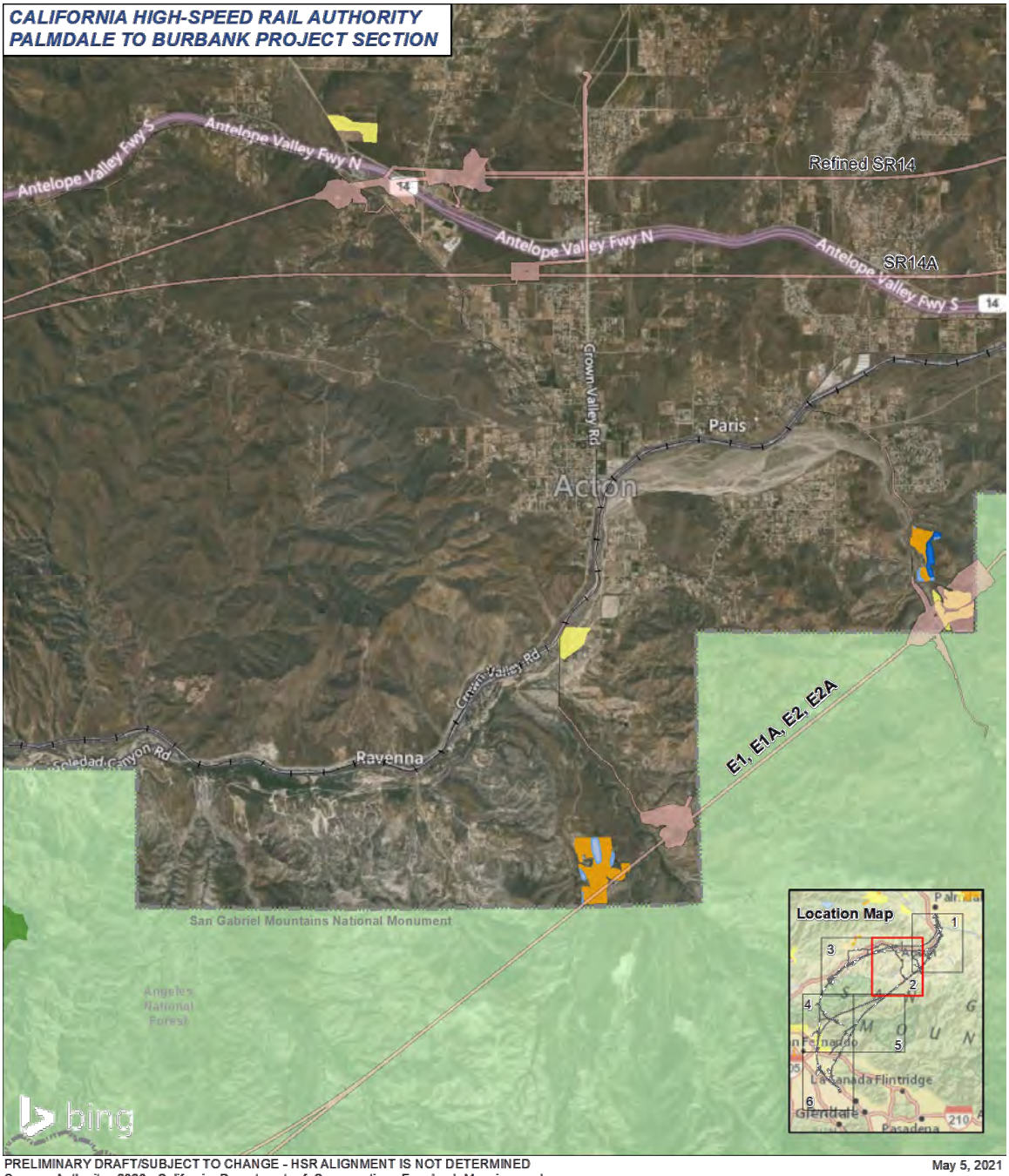

Figure 3.14-3 Agricultural Farmland Resource Study Area (Map 2 of 6)

Figure 3.14-4 Agricultural Farmland Resource Study Area (Map 3 of 6)

Figure 3.14-5 Agricultural Farmland Resource Study Area (Map 4 of 6)

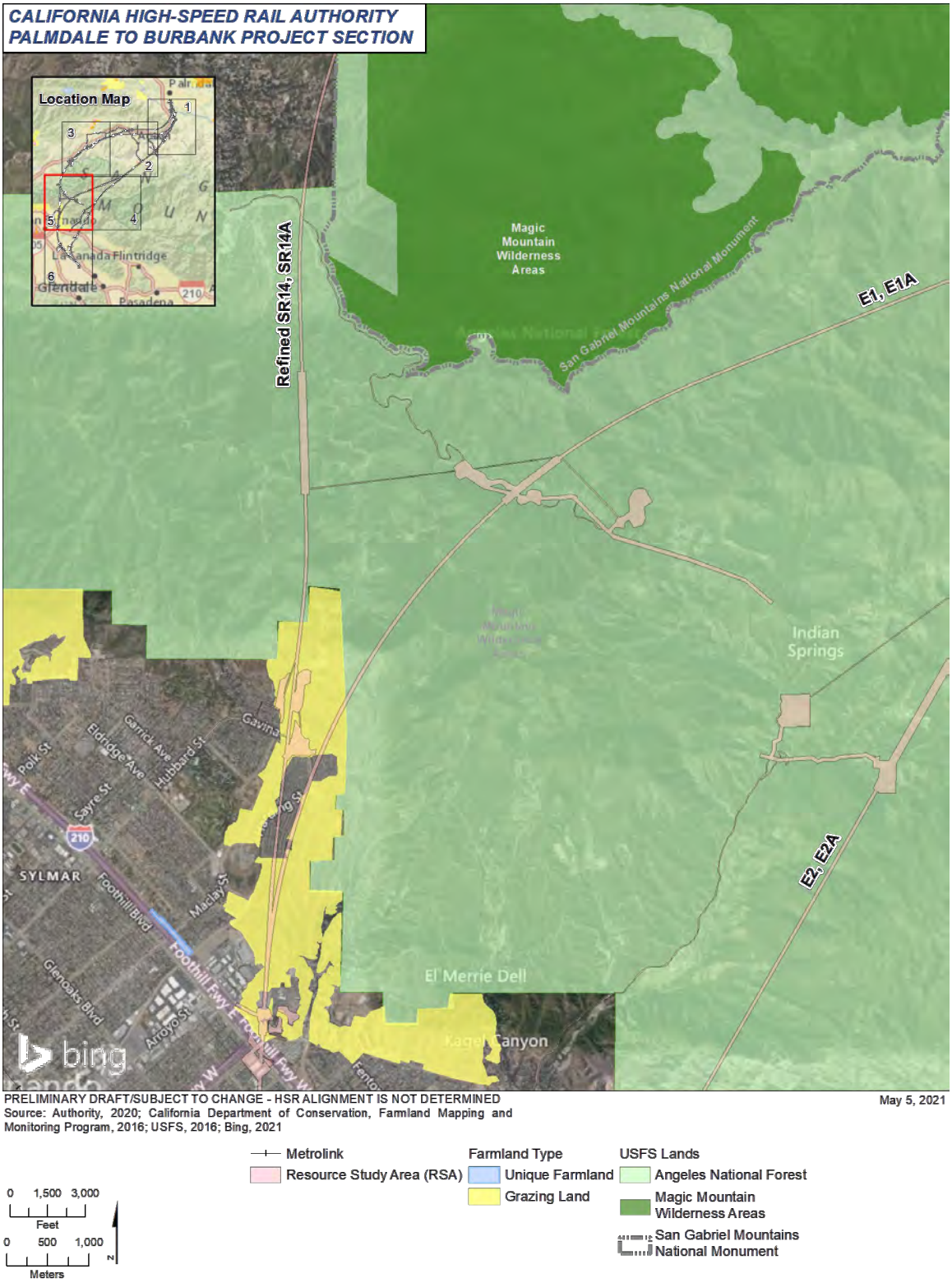

Figure 3.14-6 Agricultural Farmland Resource Study Area (Map 5 of 6)

PRELIMINARY DRAFT/SUBJECT TO CHANGE - HSR ALIGNMENT IS NOT DETERMINED
Source: Authority, 2020; California Department of Conservation, Farmland Mapping and Monitoring Program, 2016; USFS, 2016; Bing, 2021

May 5, 2021

Figure 3.14-7 Agricultural Farmland Resource Study Area (Map 6 of 6)

Figure 3.14-6 shows the Grazing Land that falls within or near the Refined SR14 and SR14A Build Alternative agricultural farmland and forest land RSA, which is noted in Table 3.14-2. This Grazing Land is at the perimeter of the ANF near Pacoima Reservoir**.** A total of 67 and 39 acres of Grazing Land, respectively, is located in the agricultural and forest land RSA for the Refined SR14 and SR14A Build Alternatives.

Forest Land

As noted above, the agricultural farmland and forest land RSA does not contain lands designated, managed, or leased for timber production, nor any areas officially designated as TPZs. Portions of the agricultural and forest land RSA for the Refined SR14 and SR14A Build Alternatives are located within the ANF, including the SGMNM; however, these areas generally do not meet the Cal. Public Res. Code, Section 12220(g) definition of forest land because they do not support 10 percent native tree cover.

E1 and E1A Build Alternatives

Agricultural Farmland

Table 3.14-4 summarizes the types of agricultural farmland located within the agricultural farmland and forest land RSA for the E1 and E1A Build Alternatives. Figure 3.14-2 through Figure 3.14-7 depict the E1 and E1A Build Alternative agricultural farmland and forest land RSA in the Central Subsection.

Table 3.14-4 Agricultural Farmland within the E1 and E1A Build Alternative Resource Study Areas in the Central Subsection

Type of Agricultural Farmland	Resource Study Area (acres)	
	E1	E1A
Important Farmland	10	8
Grazing Land	84	58

Source: FMMP, 2016a
Acreage is rounded to the nearest whole number.
FMMP = Farmland Mapping and Monitoring Program

As shown in Figure 3.14-2, the E1 and E1A Build Alternative agricultural farmland RSA is located near an approximately 9-acre vineyard classified as Important Farmland, immediately east of the existing Metrolink line, near the intersection of East Carson Mesa Road and Katee Lane. Of the 9-acre vineyard, 1 acre falls within the agricultural farmland and forest land RSA for the E1 and E1A Build Alternatives. The remainder of the Important Farmland acreage, as listed in Table 3.14-4, is associated with the farm located near Arrastre Canyon Road and shown on Figure 3.14-3.

Figure 3.14-2 also shows areas of Important Farmland along Aliso Canyon Road, and in relation to the E1 and E1A Build Alternative agricultural farmland and forest land RSA. These lands are located outside of the E1 and E1A Build Alternative agricultural farmland and forest land RSA, just east of the Aliso Canyon access road. At its closest point, this parcel is located approximately 7 feet east of the agricultural farmland and forest land RSA boundary, as defined in Section 3.14.4.1. However, because the parcel is not located within the agricultural farmland and forest land RSA boundary, the parcel is not represented in the data presented in Table 3.14-4, which notes acreage of agricultural farmland and forest land within the agricultural farmland and forest land RSA.

Figure 3.14-4 shows areas of Important Farmland near Arrastre Canyon Road within the agricultural and forest land RSA for the E1 and E1A Build Alternatives. Table 3.14-4 includes the acreage of Important farmland near Arrastre Canyon Road that falls within the E1 and E1A Build Alternative agricultural farmland and forest land RSA.

Figure 3.14-6 shows Grazing Land within or near the E1 and E1A Build Alternative agricultural farmland and forest land RSA, located at the perimeter of the ANF near Pacoima Reservoir.

Forest Land

As noted above, the E1 and E1A Build Alternative agricultural farmland and forest land RSA does not contain lands designated, managed, or leased for timber production, nor any areas officially designated as TPZs. Portions of the agricultural and forest land RSA for the E1 and E1A Build Alternatives are located within the ANF, including the SGMNM; however, these areas generally do not meet the Cal. Public Res. Code, Section 12220(g) definition of forest land because they do not support 10 percent native tree cover.

E2 and E2A Build Alternatives

Agricultural Farmland

Table 3.14-5 summarizes the types of agricultural farmland located within the agricultural farmland and forest land RSA for the E2 and E2A Build Alternatives; all such lands are located within the Central Subsection. Figure 3.14-2 through Figure 3.14-7 depict the E2 and E2A Build Alternative agricultural farmland and forest land RSA in the Central Subsection. The agricultural and forest land RSA for the E2 and E2A Build Alternatives includes the same Important Farmland as the agricultural and forest land RSA for the E1 and E1A Build Alternatives, respectively.

Table 3.14-5 Agricultural Farmland within the E2 and E2A Build Alternative Resource Study Areas in the Central Subsection

Type of Agricultural Farmland	Resource Study Area (acres)	
	E2	E2A
Important Farmland	10	8
Grazing Land	22	22

Source: FMMP, 2016a
Acreage is rounded to the nearest whole number.
FMMP = Farmland Mapping and Monitoring Program

There are 22 acres of Grazing Land within the E2 and E2A Build Alternative agricultural farmland and forest land RSA.

Forest Land

As noted above, the agricultural farmland and forest land RSA does not contain lands designated, managed, or leased for timber production nor any areas officially designated as TPZs. Portions of the E2 and E2A Build Alternative agricultural farmland and forest land RSA are located within the ANF, including the SGMNM; however, these areas generally do not meet the Cal. Public Res. Code, Section 12220(g) definition of forest land because they do not support 10 percent native tree cover.

3.14.5.3 Burbank Subsection

Burbank is in the central portion of Los Angeles County approximately 12 miles north of downtown Los Angeles. The northeastern portion of Burbank is located along the foothills of the Verdugo Mountains, and the western edge of Burbank is located near the eastern part of the San Fernando Valley. Burbank is bisected by the Golden State Freeway (Interstate 5) and is adjacent to the cities of Los Angeles and Glendale. Burbank's city limits encompass approximately 17.1 square miles. Land within the boundaries of the city of Burbank is entirely urbanized. As depicted on Figure 3.14-7, there are no existing agricultural farmlands located within the Burbank Subsection agricultural farmland and forest land RSA. Additionally, there are no forest lands, timberlands, or TPZs located within the Burbank Subsection agricultural farmland and forest land RSA.

3.14.6 Environmental Consequences

3.14.6.1 Overview

This section evaluates the potential for the No Project Alternative and the six Build Alternatives to convert both protected farmlands to nonagricultural uses and forest land to non-forest uses. Construction impacts, such as the use of land for construction staging, are considered temporary, if they would cease when construction is completed, and the land restored to its pre-construction use. Other construction impacts, such as possible conversion of agricultural farmland or forest land to HSR infrastructure, would be considered permanent if these lands would remain in nonagricultural or non-forest use. Operations impacts, such as wind and noise from passing trains, would also be considered permanent impacts. This impact assessment is organized as follows:

- **Construction Impacts**
  - Impact AG#1: Temporary Use of Agricultural or Forest Land for Construction Staging, Material Laydown, and Access.
  - Impact AG#2: Permanent Conversion of Agricultural Land to Nonagricultural Land.
  - Impact AG#3: Permanent Conversion of Forest or Timberland to Non-Forest Use
  - Impact AG#4: Temporary Utility and Infrastructure Interruption.
  - Impact AG#5: Interference with Aerial Spraying Activities.
  - Impact AG#6: Noise and Vibration Effects on Farm Animals.
- **Operations Impacts**
  - Impact AG#7: Wind-Induced Effects.
  - Impact AG#8: Noise and Vibration Effects on Farm Animals.

3.14.6.2 No Project Alternative

Under the No Project Alternative, the Palmdale to Burbank Project Section would not be built. Therefore, analysis of impacts under the No Project Alternative is based on a review of city and county adopted general plans, regional transportation plans for all modes of travel, and agency-provided lists of pending and approved projects in Los Angeles County (Appendix 3.19-A). In assessing future conditions, it was assumed that all 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.

As discussed in Chapter 1, Project Purpose, Need, and Objectives, of this Draft EIR/EIS, the population of Los Angeles County is expected to grow between 2015 and 2040. Development in the agricultural farmland and forest land RSA to accommodate the population increase could continue under the No Project Alternative. Local and regional growth management and land use plans encourage infill and higher-density development in urban areas and concentration of future nonagricultural uses around transit corridors, which would help reduce the conversion of land in general. However, under the No Project Alternative, cities would not have the same opportunities to encourage higher density transit-oriented development as they would with implementation of the California HSR System.

Given the relative scarcity of agricultural land and forest land within the urban and suburban areas between Palmdale and Burbank, the No Project Alternative would be unlikely to convert agricultural land or forest land in these already urbanized areas. Anticipated growth in the Palmdale and Burbank regions would be concentrated in already urbanized areas. Undeveloped rural areas between Palmdale and Burbank are more likely to contain agricultural or forest resources. Land use restrictions within the ANF, including the SGMNM, would preclude No

Project Alternative development projects from affecting forest lands in these areas managed by the USFS.

Because there is very little Important Farmland within the agricultural farmland and forest land RSA, the No Project Alternative would not likely result in farmland conversions, wind-induced effects, or interference on aerial spraying. However, if a project were to result in the conversion of Important Farmland to nonagricultural uses, it would constitute an impact. Because more Grazing Land exists in the agricultural farmland and forest land RSA, there is a higher potential for conversion of Grazing Land than of Important Farmland. However, Grazing Land is not considered Important Farmland and conversion of such land would not result in a significant impact under CEQA. Noise and vibration from construction of new projects could impact farm animals on Grazing Land. However, the livestock would not be confined and could move away from the noise and vibration sources. Furthermore, No Project Alternative development would be required to comply with CEQA and NEPA (if such projects rely on federal funding or other federal approval), which require protection and preservation of affected agricultural or farmland resources.

3.14.6.3 Build Alternatives

There are no agricultural farmlands or forest lands within the Burbank Subsection. Therefore, the six Build Alternatives would not affect agricultural farmlands, forest lands, or associated agricultural resources in the Burbank Subsection. The following impact analysis focuses on portions of each of the six Build Alternatives in the Central Subsection that would encounter agricultural farmlands or potential forest lands.

Agricultural Farmland

As discussed in Section 3.14.5, there are three areas of Important Farmland within or adjacent to the agricultural farmland and forest land RSA in the Central Subsection:

- North of the Southern California Edison (SCE) Vincent Substation (Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives; Figure 3.14-2). This farmland consists of an approximately 9-acre vineyard, of which 1 acre falls within the agricultural farmland and forest land RSA.
- At Blum Ranch, a family-owned farm, shop, and event venue near Aliso Canyon Road (just outside of the E1, E1A, E2, and E2A Build Alternative agricultural farmland and forest land RSAs; Figure 3.14-2). At its closest point, the Important Farmland located at Blum Ranch is located approximately 7 feet east of the E1, E1A, E2, and E2A Build Alternative agricultural farmland and forest land RSA boundaries. However, because the Blum Ranch parcel is not located within the agricultural farmland and forest land RSA boundary, this farmland would not be directly affected.
- South of Arrastre Canyon Road (E1, E1A, E2, and E2A Build Alternatives; Figure 3.14-4). Approximately 9 acres of Important Farmland located near Arrastre Canyon Road falls within the boundaries of the E1, E1A, E2, and E2A Build Alternatives agricultural farmland and forest land RSAs.

Additionally, there are two locations containing grazing land:

- South of Blum Ranch adjacent to Aliso Canyon Road (E1, E1A, E2, and E2A Build Alternatives; Figure 3.14-2)
- In Sylmar, south of the Magic Mountain Wilderness Area and near Lopez Canyon Road (Refined SR14, SR14A, E1, and E1A Build Alternatives; Figure 3.14-6)

Table 3.14-6 summarizes the amount of surface and subsurface footprint located on or under agricultural farmland for each Build Alternative within their respective agricultural farmland and forest land RSAs in the Central Subsection. For the purposes of this analysis, surface footprint supersedes subsurface footprint where surface and subsurface footprint would coincide. This means that an acre containing both a surface and subsurface footprint is reported as 1 acre of

surface footprint in Table 3.14-6; only areas containing a subsurface footprint with no associated surface features are reported as a subsurface footprint.

Table 3.14-6 Build Alternatives Footprint on or under Agricultural Farmland, Base Footprint (acres)

Build Alternative (Central Subsection)	Surface Footprint				Subsurface Footprint	
	Temporary Use of Important Farmland	Permanent Conversion of Important Farmland	Temporary Use of Grazing Land	Permanent Conversion of Grazing Land	Important Farmland	Grazing Land
Refined SR14	0	1	0 to 36	0 to 10	0	67 to 69
SR14A	0	<1	10 to 36	7 to 11	0	41
E1	0	0	8	14 to 24	10	62
E1A	0	0	8	20 to 24	8	36
E2	0	0	8	14	10	0
E2A	0	0	8	14	8	0

Source: FMMP, 2016a
Acreage is rounded to the nearest whole number. These acreages represent a range for each Build Alternative footprint as the footprint would differ depending on which adit/window alternative is implemented
FMMP = Farmland Mapping and Monitoring Program
< = less than

Forest Land

There are no TPZs or timberland within the six Build Alternative agricultural farmland and forest land RSA; these resources are not evaluated further.

The six Build Alternative agricultural farmland and forest land RSA contains portions of the ANF, including the SGMNM. However, much of the land within the RSA does not meet the CEQA definition of forest land because it does not support 10 percent native tree cover, or it does not allow for the management of forest resources. Each of the Build Alternatives would require a permanent facility surface footprint on private in-holdings within the ANF, including the SGMNM, as shown on Figure 3.14-11 through Figure 3.14-15. Surface feature impacts associated with the Refined SR14, SR14A, E1, and E1A Build Alternatives within the ANF, including the SGMNM, would be limited to adits and associated utilities, as described below:

- Adit Option SR14-A1 would include an adit structure located within the ANF on a private in-holding (i.e., privately owned parcel) near Little Tujunga Canyon Road and would require an electrical power line extending from the adit structure through an existing electrical utility corridor along Little Tujunga Canyon Road. A temporary CSA during project construction would also be located along Little Tujunga Canyon Road (Figure 3.14-11). The private in-holding does not support 10 percent native tree cover, nor does it allow for the management of forest resources.
- Adit Option E1-A1 would include an adit structure, electrical power line, and temporary CSA in the same location as the SR14-A1 adit option (Figure 3.14-12).
- Adit Option E1-A2 would include an adit structure located within the ANF on a private in-holding and would require an electrical power line extending from the adit structure through an existing electrical utility corridor along Little Tujunga Canyon Road. A temporary CSA during project construction would also be located along Little Tujunga Canyon Road (Figure 3.14-13). The private in-holding does not support 10 percent native tree cover, nor does it allow for the management of forest resources.

Surface facilities associated with the E2 and E2A Build Alternatives within the ANF, including the SGMNM, would be located in areas that have been previously disturbed and would not be considered forest land given the lack of native tree cover. Therefore, the E2 and E2A Build Alternatives would not impact forest land.

Construction Impacts

Impact AG#1: Temporary Use of Agricultural or Forest Land for Construction Staging, Material Laydown, and Access.

There would be no direct temporary use of Important Farmland for CSAs during the construction of each of the six Build Alternatives. Water would be delivered to CSAs through a temporary pipeline. However, in the event that construction activities adjacent to Important Farmland or other Important Farmland would result in indirect impacts on farmland, AG-IAMF#1 will be implemented to ensure CSAs are restored to their pre-construction conditions. Furthermore, AG-IAMF#5 through AG-IAMF#6 would minimize impediments to routine agricultural operations and normal business activities during project construction.

Regarding forest lands, the E2 and E2A Build Alternatives do not propose CSAs within areas that meet the CEQA definition of forest land and would therefore not result in temporary uses of forest land during construction. The Refined SR14, SR14A, E1, and E1A Build Alternatives would include adit option sites within areas that generally exhibit over 10 percent natural tree cover. Construction activities could result in the removal of vegetation within the CSA. However, the CSAs are located on private in-holdings. These private in-holdings contain existing infrastructure, including structures (i.e., residences and garages), utility lines, and roadway facilities, and thus are not managed for forest resources. As discussed in Chapter 2, Alternatives, CSAs would be returned to pre-construction conditions after the construction period.

CEQA Conclusion

Construction of each of the Build Alternatives would not result in the temporary loss of agricultural land. The E2 and E2A Build Alternatives would not result in direct temporary conversion of forest land during construction; therefore, no impact would occur for the E2 and E2A Build Alternatives, and no mitigation is required under CEQA.

Although construction of the Refined SR14, SR14A, E1, and E1A Build Alternative adit options could temporarily affect lands located within the ANF, these temporary impacts would occur on private in-holdings that are not managed for forest resources and would be returned to pre-construction conditions. In the event that construction activities near agricultural land could result in indirect impacts on farmland, AG-IAMF#1 will be implemented to ensure CSAs are restored to their pre-construction conditions. Furthermore, AG-IAMF#5 and AG-IAMF#6 would minimize impediments to routine agricultural operations and normal business activities during project construction. This impact would be less than significant for the Refined SR14, SR14A, E1, and E1A Build Alternatives. Therefore, CEQA does not require any mitigation.

Impact AG#2: Permanent Conversion of Agricultural Land to Nonagricultural Land.

Table 3.14-6 summarizes the permanent conversions of agricultural land for the six Build Alternatives. The Refined SR14 and SR14A Build Alternatives would include the construction of a new electrical utility corridor for electrical facilities (see Section 3.6, Public Utilities and Energy) that would affect 1 acre of a 9-acre vineyard considered Important Farmland. The 9-acre vineyard is located east of where the Refined SR14 and SR14A Build Alternative alignments would cross Sierra Highway (see Figure 3.14-8). The utility corridor would traverse this parcel of Important Farmland for approximately 250 feet affecting 1 acre of the 9-acre vineyard. AG-IAMF#2 though AG-IAMF#6 will be implemented to reduce indirect impacts from placing utility poles near the Important Farmland. However, direct conversion of Important Farmland would still represent a substantial impact for the Refined SR14 and SR14A Build Alternatives. For this reason, adherence to Mitigation Measure AG-MM#1, which requires the Authority to space utility poles along the Refined SR14 and SR14A Build Alternative alignments to avoid a parcel of Important Farmland, would be required. Electrical utility lines and poles would be used to allow the utility line to span a parcel of farmland without requiring conversion of farmland for the relocation of

electrical transmission towers. Adherence to Mitigation Measure AG-MM#1 would also be required for this measure.

The E1, E1A, E2, and E2A Build Alternatives would not result in permanent surface conversions of Important Farmland. These Build Alternative alignments would traverse beneath Important Farmland at Aliso Canyon Road and at Forest Service Road #4N33 (Figure 3.14-9 and Figure 3.14-10, respectively). In both locations, the California HSR System would be operating in a tunnel.

CEQA Conclusion

The Refined SR14 and SR14A Build Alternatives would include an electrical utility corridor that could convert a portion (1 acre) of a 9-acre vineyard that is considered Important Farmland to nonagricultural use. Mitigation Measure AG-MM#1 will be implemented to minimize significant impacts under the Refined SR14 and SR14A Build Alternatives as a result of direct conversion of Important Farmland. Mitigation Measure AG-MM#1 will also be implemented to minimize impacts from using poles to allow the electrical utility line to span a parcel of farmland without requiring conversion of farmland for the relocation of electrical transmission towers. With implementation of Mitigation Measure AG-MM#1, no Important Farmland would be converted to a nonagricultural use and this impact would be less than significant for the Refined SR14 and SR14A Build Alternatives. Important Farmland exists along the E1, E1A, E2, and E2A Build Alternative alignments. However, activities along these alignments including excavation of adits and electrical utility line installation would not traverse Important Farmland above ground and would not convert Important Farmland to a nonagricultural use. There is no existing Important Farmland along the E1 and E2 Build Alternative alignments. As such, there would be no impact for the E1, E1A, E2, and E2A Build Alternatives. Therefore, CEQA does not require any mitigation for the E1, E1A, E2, and E2A Build Alternatives.

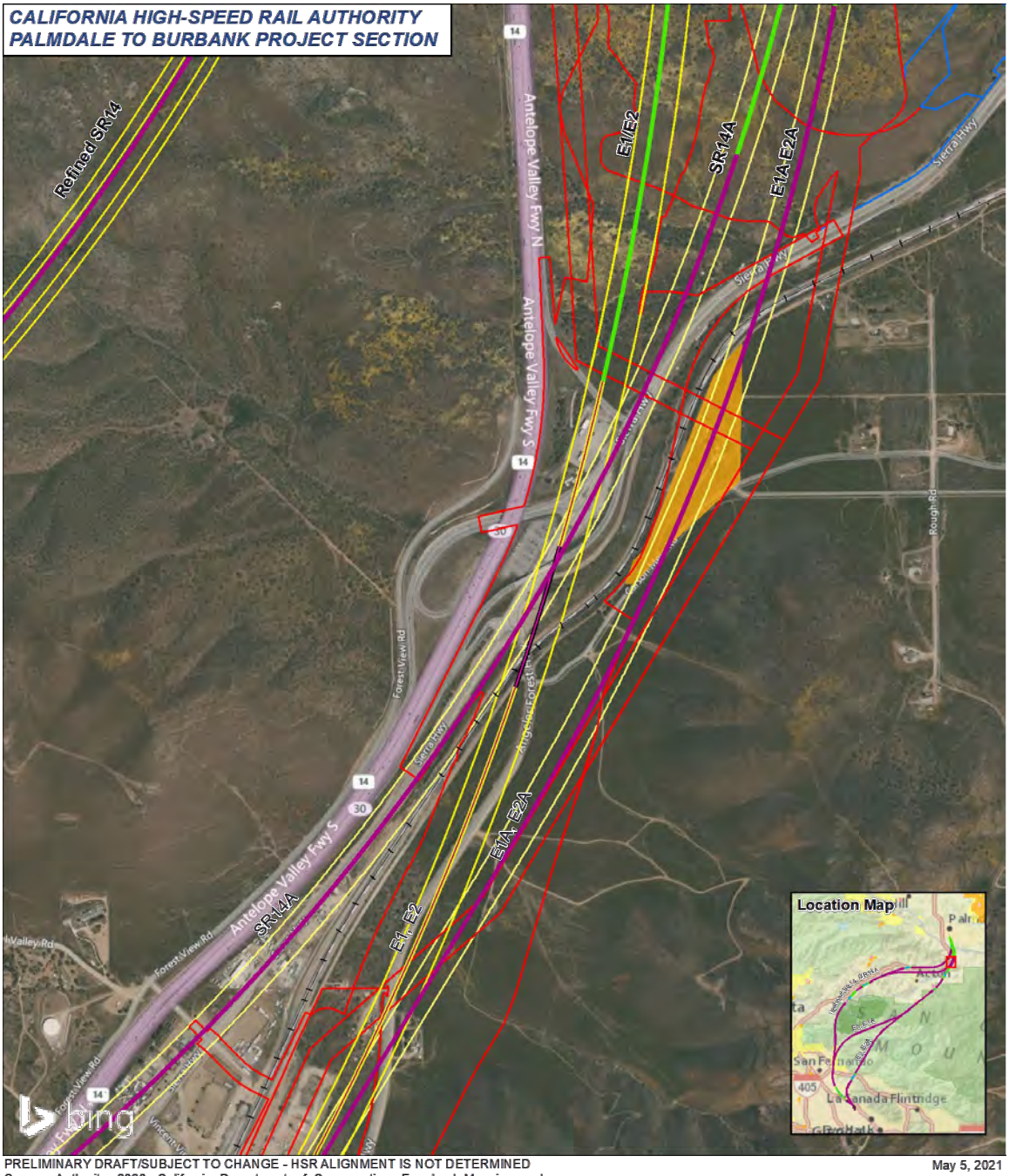

Figure 3.14-8 Agricultural Land Impacts (Map 1 of 3)

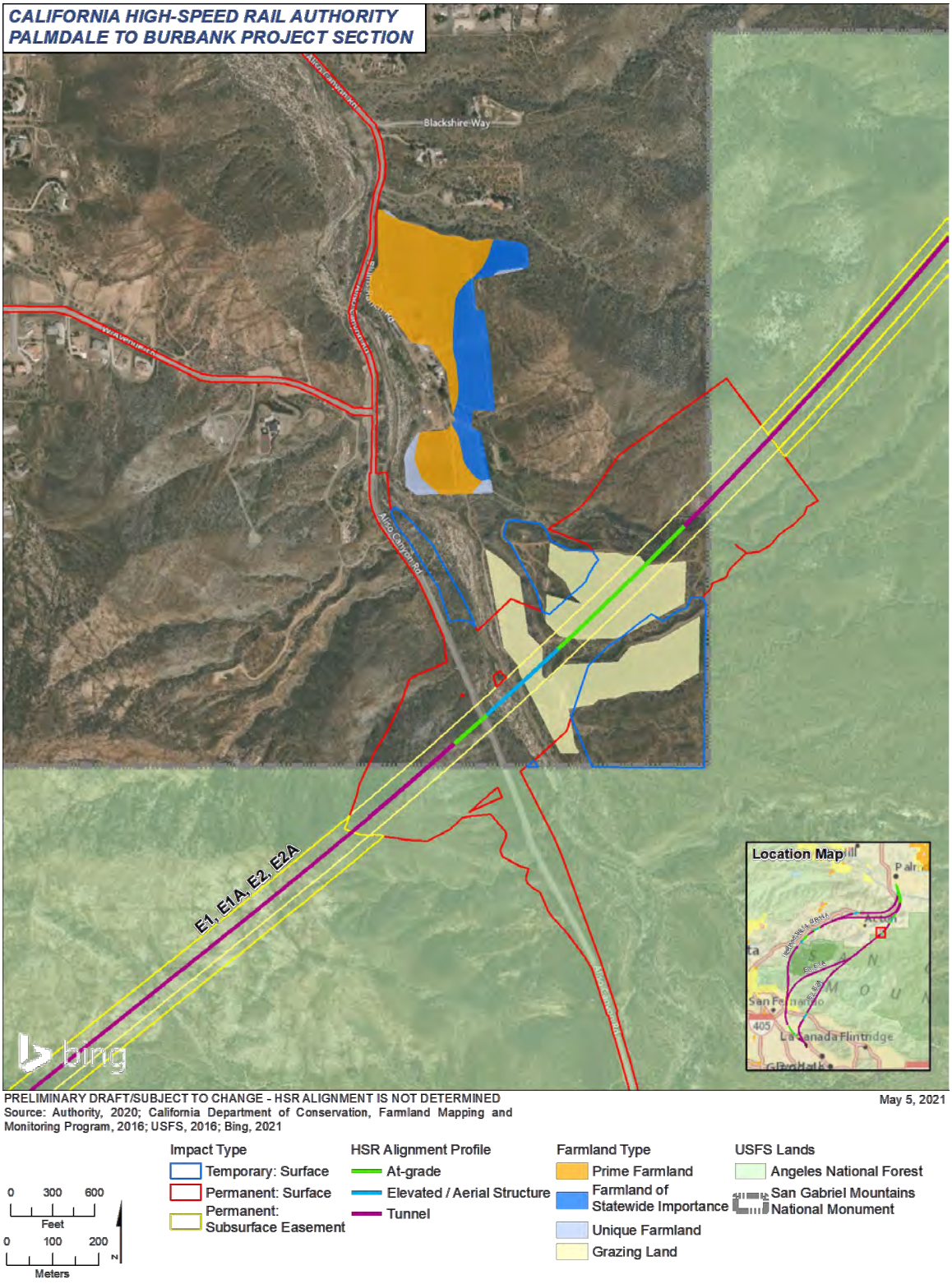

Figure 3.14-9 Agricultural Land Impacts (Map 2 of 3)

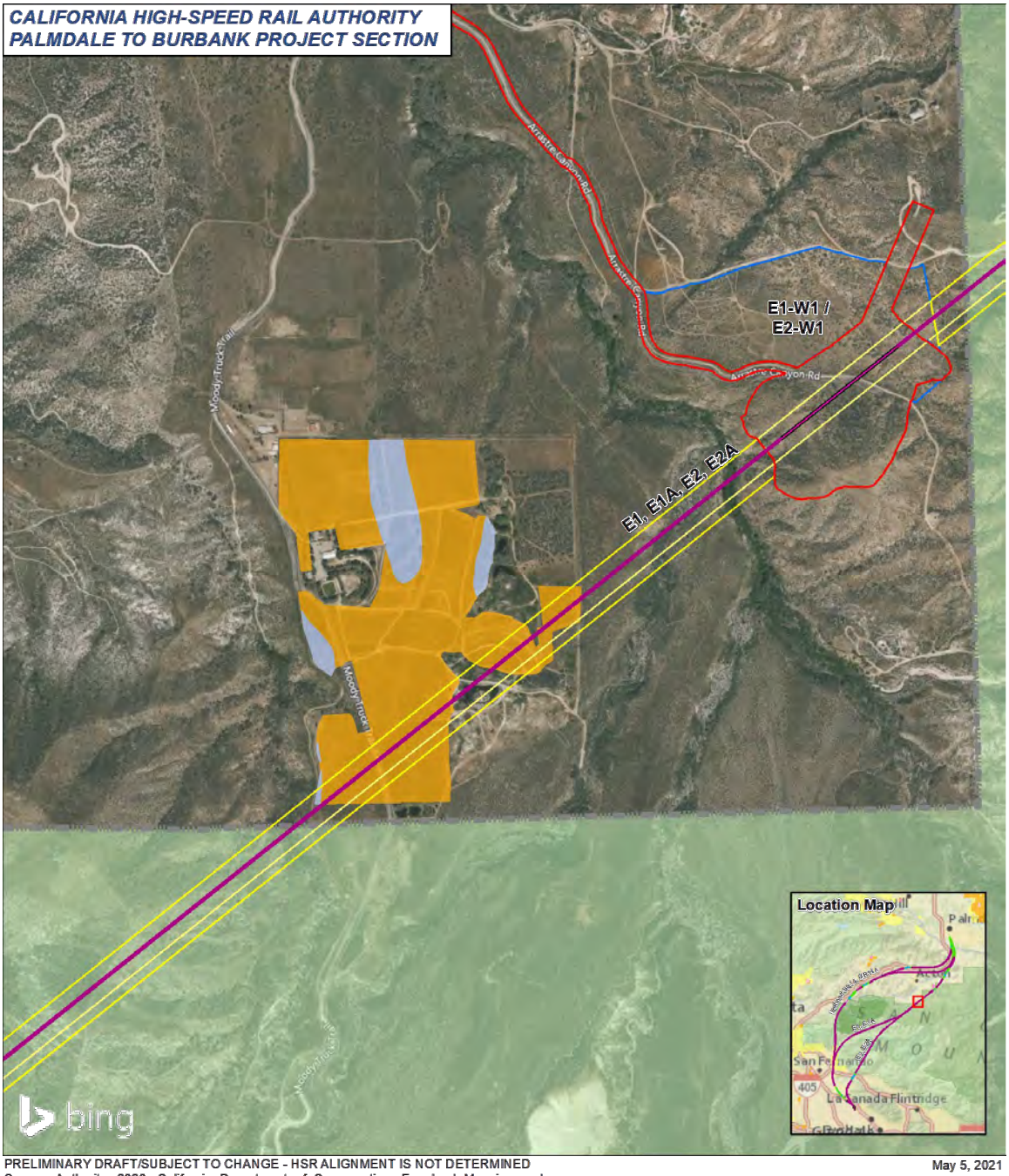

Figure 3.14-10 Agricultural Land Impacts (Map 3 of 3)

Impact AG#3: Permanent Conversion of Forest or Timberland to Non-Forest Use.

Each of the Build Alternatives would require a permanent facility surface footprint on private in-holdings within the ANF, including the SGMNM, as shown on Figure 3.14-11 through Figure 3.14-15. However, none of these private in-holdings would meet the CEQA definition of forest land given that the land does not support 10 percent native tree cover and does not allow for management of forest resources.

Permanent facilities associated with the Refined SR14, SR14A, E1, and E1A Build Alternative adit option sites include the adit structure and electrical utility corridors. Utility corridors would follow existing roadways within the ANF, and adit structures would be located on private in-holdings that contain existing structures (i.e., residences, garages, sheds, and outbuildings), utility lines, and roadway facilities. These areas are already disturbed and are not managed for forest resources. Given this, the Refined SR14, SR14A, E1, and E1A Build Alternative adits within the ANF would not impact forest lands.

The Refined SR14, SR14A, E1, and E1A Build Alternative adit option sites would require the installation of power lines to provide electricity to the adit. These power lines would generally cross through private in-holdings, adjacent to existing roadways, and along existing electrical utility corridors within the ANF. Portions of these routes would traverse over relatively undisturbed areas that could support 10 percent native tree cover and be considered forest land. These areas could also allow for management of one or more forest resources within the ANF, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Although large-scale vegetation removal is not envisioned to install the power lines, installation of the power lines could result in some vegetation removal or trimming that could affect existing forest land.

USFS manages trees/timber within the ANF and requires a Special Use Authorization for new uses on USFS lands. Where electrical utility corridors associated with the Refined SR14, SR14A, E1, and E1A Build Alternative adit facilities would affect forest trees, the Authority would be required to apply for a Special Use Authorization Permit and would adhere to requirements to avoid or minimize impacts on forest land or management of forest trees within the ANF.

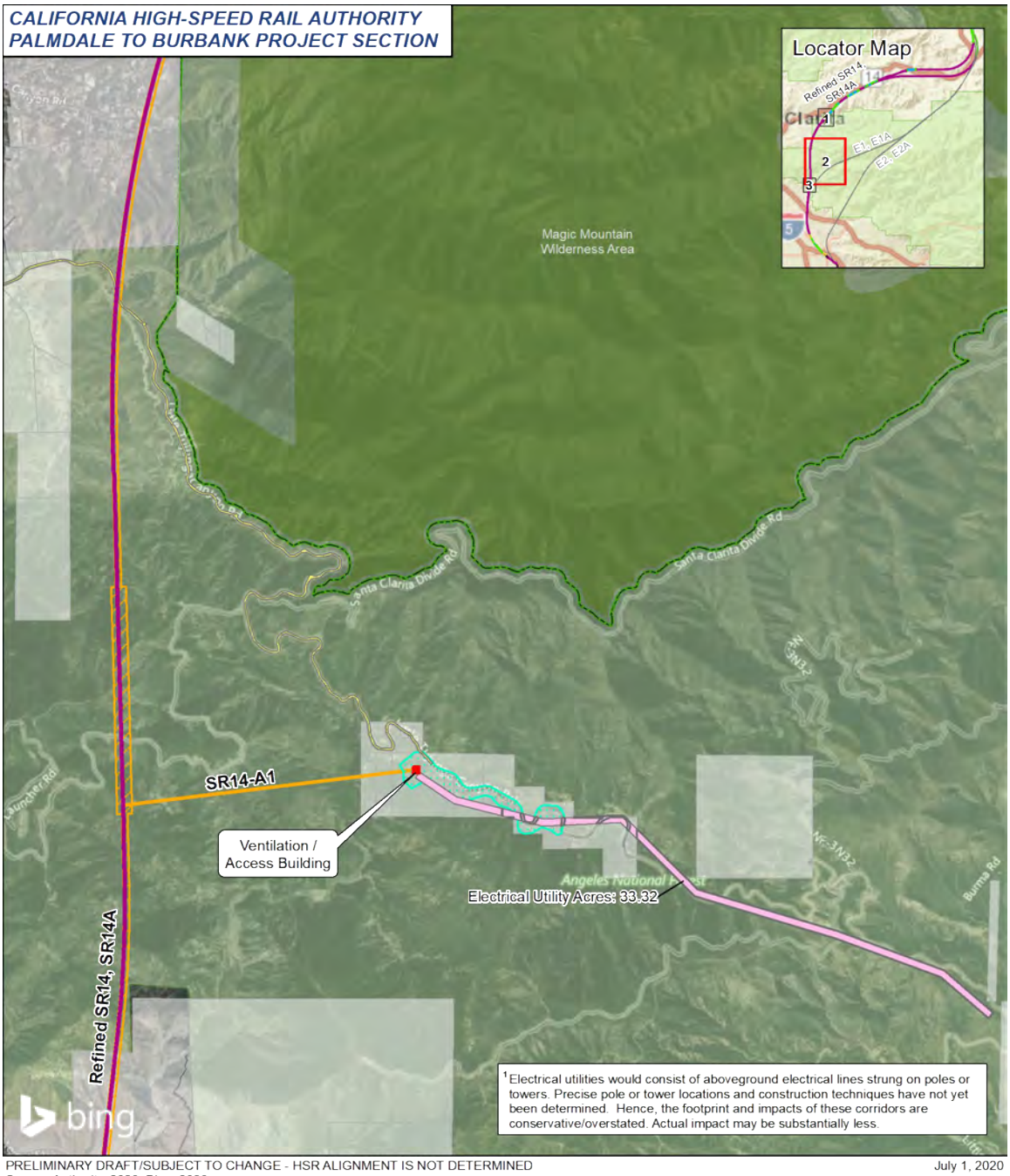

Figure 3.14-11 Refined SR14 Build Alternative – Adit Option SR14-A1

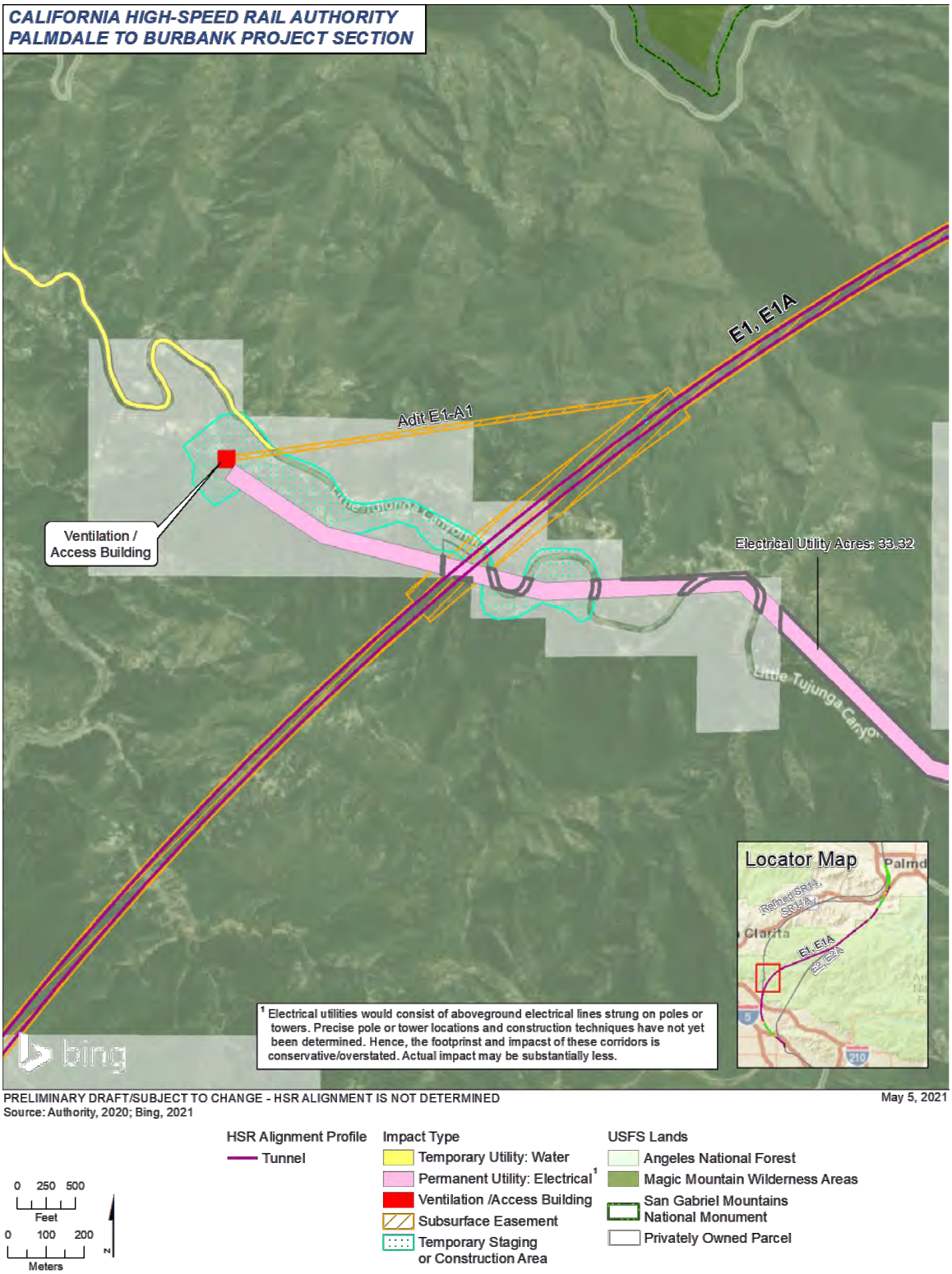

Figure 3.14-12 E1 Build Alternative – Adit Option E1-A1

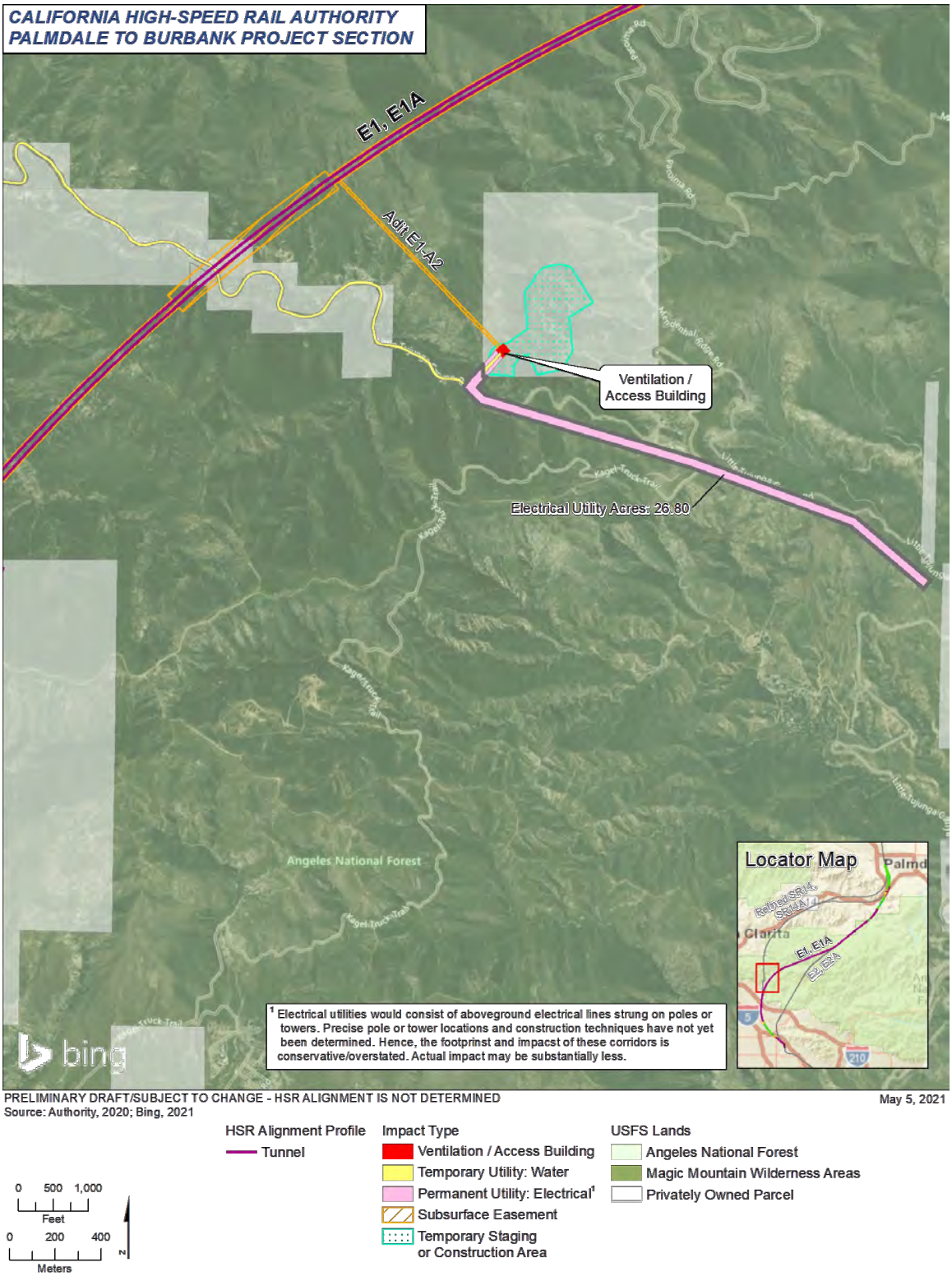

Figure 3.14-13 E1 Build Alternative – Adit Option E1-A2

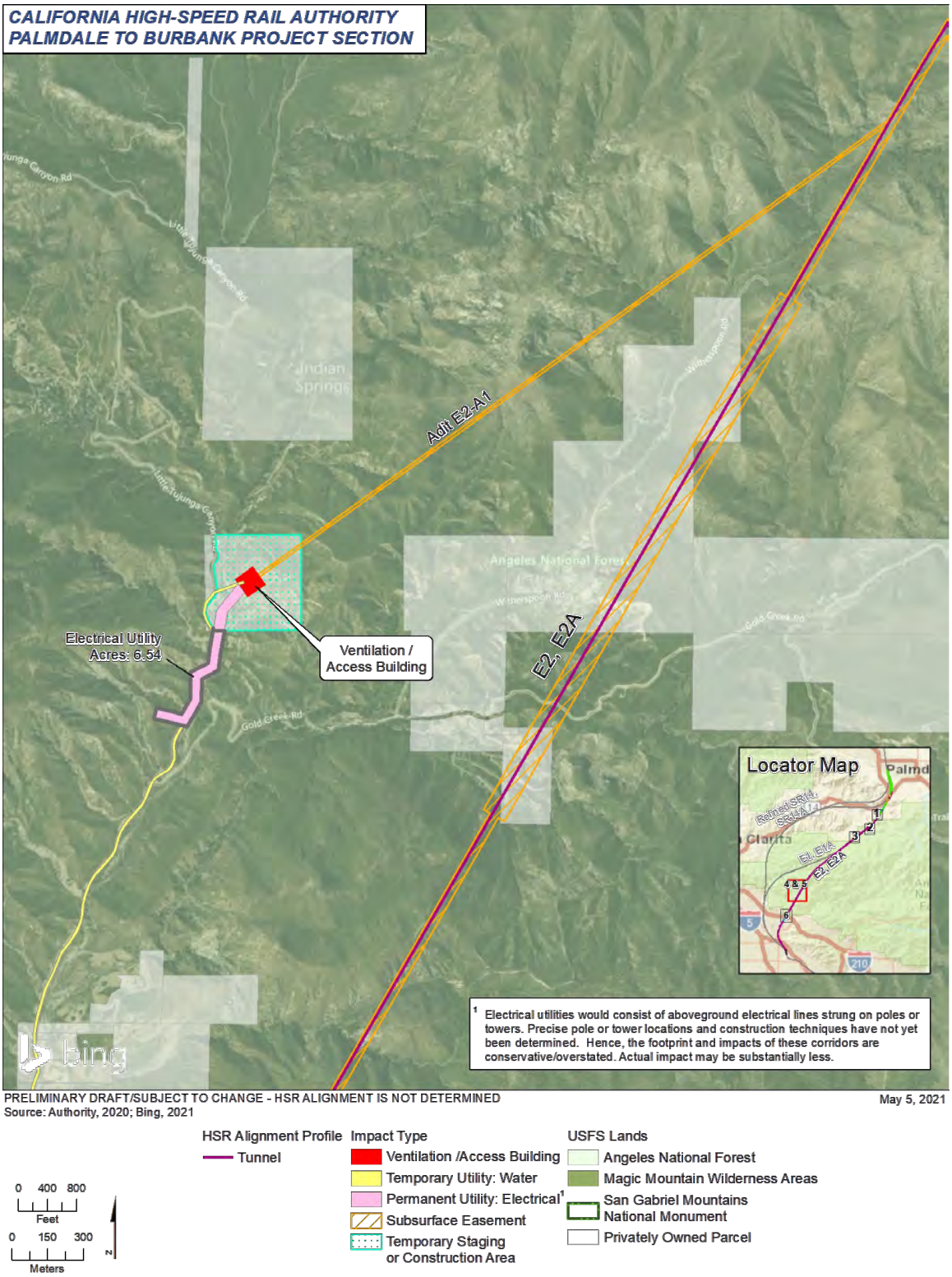

Figure 3.14-14 E2 Build Alternative – Adit Option E2-A1

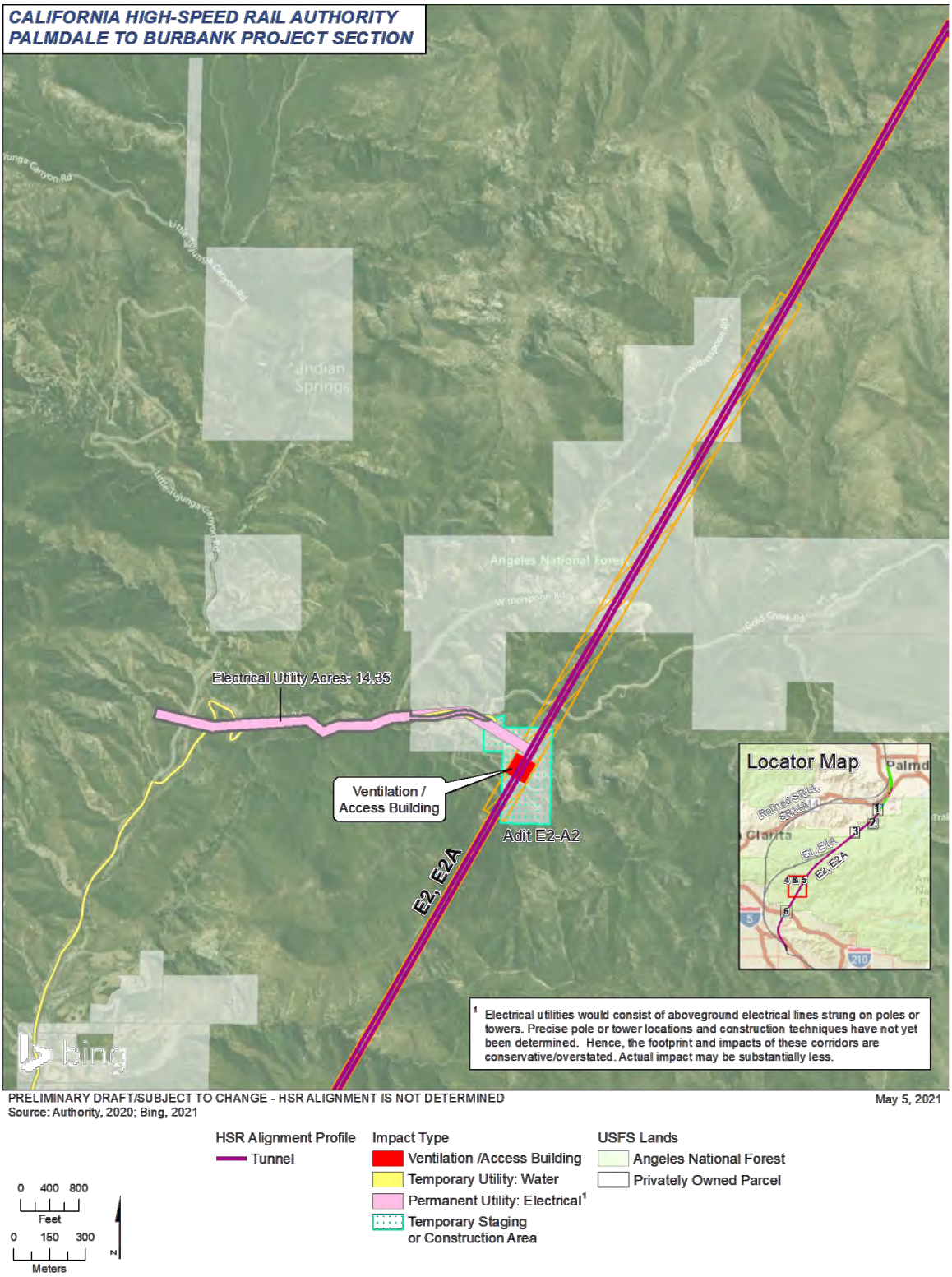

Figure 3.14-15 E2 Build Alternative – Adit Option E2-A2

CEQA Conclusion
The six Build Alternatives would not encounter designated timberlands or TPZs. Therefore, the six Build Alternatives would not result in the permanent conversion of timberlands or TPZs to non-timberland use. Thus, the project would not result in the loss of timberland or the conversion of timberland land to non-forest use.

With regard to forest land, the E2 and E2A Build Alternatives, including the surface features associated with adit options E2-A1 and E2-A2, would not encounter land meeting the CEQA definition of forest land. Thus, the E2 and E2A Build Alternatives would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur for the E2 and E2A Build Alternatives. Therefore, CEQA does not require any mitigation.

Power lines extending from adit facilities associated with the Refined SR14, SR14A, E1, and E1A Build Alternatives would encounter forest land. These power lines would be located on private in-holdings and adjacent to existing roadway or electrical utility corridors within the ANF. These areas are already disturbed and are not managed for or as forest resources. However, power lines would cross over relatively undisturbed areas that could support 10 percent native tree cover and could also allow for management of forest resources. Installation of the power lines could result in some vegetation removal or trimming, which could affect existing forest land. However, large-scale vegetation removal to install powerlines is not envisioned. This impact would be less than significant for the Refined SR14, SR14A, E1, and E1A Build Alternatives. Therefore, CEQA does not require any mitigation.

Impact AG#4: Temporary Utility and Infrastructure Interruption.

Agricultural operations in Los Angeles County depend on utility systems and other infrastructure such as irrigation systems (e.g., ditches, drains, pipelines, and wells) and access roads. Implementation of PUE-IAMF#2 and PUE-IAMF#4, outlined in Section 3.14.4.2 and described in Section 3.6, Public Utilities and Energy, will ensure that construction of the project would not disrupt agricultural operations through interruptions of utility service. Additionally, project construction would not result in prolonged interruptions of utility service, and therefore would not affect agricultural profitability by inhibiting normal farm operations.

As described in Impact AG#2, the Refined SR14 and SR14A Build Alternatives would require the installation of a new electrical utility line across an area of Important Farmland north of the SCE Vincent Substation that would affect nearby roadways during construction. Access from the farmland to Sierra Highway is provided via West Carson Mesa Road. The Refined SR14 Build Alternative footprint would be limited to the electrical utility line in this location and would not impede access to the agricultural property. Construction of the E1, E1A, E2, and E2A Build Alternatives would require modifications to Carson Mesa Road, potentially causing access to and from the Important Farmland to the north of the SCE Vincent Substation and Sierra Highway to be temporarily detoured during construction. However, implementation of a Construction Transportation Plan described in TR-IAMF#2 will address the activities to be carried out in each construction phase, with the requirement of maintaining traffic flow during peak travel periods, thereby minimizing the impact of construction and construction traffic on adjoining and nearby roadways.

The E1, E1A, E2, and E2A Build Alternative alignments would be built at grade and on a viaduct to the south of Blum Ranch, near Aliso Canyon Road, which provides access to Acton and State Route (SR) 14. A historic irrigation pipeline runs south of Blum Ranch roughly parallel to Aliso Canyon Road. The E1, E1A, E2, and E2A Build Alternatives would cross over this irrigation pipeline on a viaduct. Chapter 4, Section 4(f) and Section 6(f) Evaluations, of this Draft EIR/EIS, stipulates that the engineering and construction consultants would coordinate to avoid this buried, historic, irrigation pipeline during the construction period. Therefore, irrigation would not be interrupted. Aliso Canyon Road would be used as an access road for spoils off-haul. As discussed further in Section 3.2, Transportation, increased traffic on this road could affect access from Blum Ranch to Acton and SR 14. However, TR-IAMF#2 will ensure continued traffic flow during construction.

The E1, E1A, E2, and E2A Build Alternative alignments would also cross underneath an area of Important Farmland south of Arrastre Canyon Road; however, each of the Build Alternatives would be underground in bored tunnels under this Important Farmland and would not affect either water lines or access roads supporting agricultural operations on this property.

These areas of Important Farmland receive water from the East Branch of the California Aqueduct, which would be traversed by each Build Alternative alignment south of Lake Palmdale. As discussed in Section 3.6, Public Utilities and Energy, construction of each of the Build Alternatives would be coordinated or phased to minimize or eliminate utility service disruption time. Prior to construction, the Contractor will be required to prepare a technical memorandum documenting how construction activities would be coordinated with service providers to minimize or avoid interruptions (PUE-IAMF#4). This will give utility providers an opportunity to help plan for anticipated service interruptions. For example, to minimize irrigation interruptions, construction work could be scheduled to coincide with routine maintenance shutdowns of the East Branch of the California Aqueduct. The Authority will work with irrigation agencies and landowners to protect pipelines, ditches, and related irrigation systems. Where relocating irrigation infrastructure is necessary, the Authority will ensure that, where feasible, new or relocated systems are operational prior to disconnecting the original irrigation system. This would help alleviate the potential for service interruptions (PUE-IAMF#2).

CEQA Conclusion

The six Build Alternatives would require changes to utilities and infrastructure that could indirectly affect Important Farmland due to service interruptions. Given the limited amount of Important Farmland within the agricultural farmland and forest land RSA, and because coordination with utility service providers would minimize or avoid irrigation disruptions (PUE-IAMF#4), service will be maintained in the event of a utility relocation (PUE-IAMF#2) and traffic flow will be maintained during peak travel periods with implementation of a Construction Transportation Plan (TR-IAMF#2). Utility disruptions would not result in the conversion of farmland to nonagricultural use. This impact would less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives. Therefore, CEQA does not require any mitigation.

Impact AG#5: Interference with Aerial Spraying Activities.

Aerial spraying of Important Farmland could be affected by the height of vertical HSR structures, such as utility poles, radio communication towers, and elevated guideways. Each Build Alternative would require vertical structures, although the number and exact location of the structures along the Build Alternatives is not known at this stage in the design. Most vertical structures, such as communication towers and utility poles, would be evenly spaced along the Build Alternative alignments.

Currently, no restrictions exist on the distances an aircraft must maintain from utility lines or towers (Gage 2010). Agricultural aircraft currently fly in areas where utility lines of varying heights, such as telephone poles and electrical transmission towers, exist in or near the sprayed fields. The distance an aircraft must maintain from powerlines and poles depends on the cropping pattern, the field's orientation, and operator-determined safety factors. Many of the vertical HSR structures would be similar to existing utility structures placed in and near agricultural fields.

The HSR structures of the greatest concern for aerial spraying would be the 100-foot-high radio communication towers that would be placed approximately every 3 miles along the alignment. Relocation of these towers would follow federal and state safety guidelines for radio masts, including lighting, thus ensuring that they are properly visible to aircraft conducting aerial spraying. Therefore, if the Build Alternatives necessitate changes in aerial spraying to avoid vertical structures constructed as part of the Palmdale to Burbank Project Section, the changes in aerial spraying patterns would consist of nominal adjustments to flight patterns and would not cause conversion of Important Farmland to nonagricultural use.

There are only three properties of Important Farmland within the six Build Alternatives agricultural farmland and forest land RSA. Near the Important Farmland to the north of the SCE Vincent Substation, the Refined SR14 and SR14A Build Alternatives would be in bored/mined tunnels and

an electrical utility line, similar to those currently present, would span the small agricultural property. The E1, E1A, E2, and E2A Build Alternative alignments would traverse past this property, approximately 700 feet east, and would not interfere with the operations of this agricultural property. Additionally, the nearest communication tower would be located approximately 1 mile south of the property. Near Blum Ranch, the alignments of the E1, E1A, E2, and E2A Build Alternatives and an associated communication tower would be approximately 0.25 mile south of the property, with access roads extending north along the existing roads of West Avenue Y 8 and Aliso Canyon Road. As such, the E1, E1A, E2, and E2A Build Alternatives would be far enough away to not impede aerial spraying. At the third Important Farmland property, the E1, E1A, E2, and E2A Build Alternatives would be in bored/mined tunnels, and no surface expressions would interfere with the property. Therefore, the six Build Alternatives would not build structures that would affect aerial spraying.

Because the HSR radio communication towers would be widely spaced and their placement can be flexible, the areas in which pilots would need to alter aerial spraying patterns would be limited and spraying would not be prevented from occurring. Electricity transmission towers associated with the network upgrades are pre-existing, and changes in spraying patterns are not anticipated from changes to these structures. Therefore, changes in spraying patterns resulting from construction of each of the six Build Alternatives, are not anticipated to cause permanent conversion of Important Farmland to a nonagricultural use due to adverse impacts on agricultural operations related to required aerial spraying.

CEQA Conclusion

The height of vertical HSR structures, such as utility poles, radio communication towers, and elevated guideways, could interfere with aerial spraying of Important Farmland. Because the relocation of towers would follow all relevant federal and state safety guidelines for radio masts, towers would be properly visible to aircrafts conducting aerial spraying. In addition, changes in spraying patterns are not anticipated and there would be no additional conversion of Important Farmland to a nonagricultural use. No impact would occur for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives. Therefore, CEQA does not require any mitigation.

Impact AG#6: Noise and Vibration Effects on Farm Animals.

Construction of the project would involve changes to the existing environment, such as the generation of noise and vibration near grazing land. The E1, E1A, E2, and E2A Build Alternatives would include aboveground alignment that would traverse grazing land south of Blum Ranch (Figure 3.14-9) In addition, the Refined SR14, SR14A, E1, and E1A Build Alternatives would locate CSAs on grazing land in Sylmar east of Veterans Memorial County Park and near the Interstate 210/SR 118 interchange (Figure 3.14-16). Livestock in each of these areas is unconfined and can roam about freely.

Construction activities such as clearing, grading, and track installation would generate noise and vibration near grazing land. Noise levels from project construction are estimated to be 89 A-weighted decibel (dBA) equivalent sound level at 50 feet for an 8-hour workday (refer to Section 3.4, Noise and Vibration). Some construction activities (e.g., clearing and grading) would occur up to the edge of the six Build Alternatives' footprint. Therefore, livestock would have to be closer than 50 feet from the edge of the footprint to experience noise effects above the recommended noise threshold during construction. Because livestock would not be in a confined situation and could move away from noise sources, noise impacts associated with construction of at-grade segments of the Build Alternatives would be limited. Refer to Section 3.4, Noise and Vibration, for a full discussion of noise and vibration impacts on livestock. AG-IAMF#5 will be implemented to notify the agricultural property owners of noise impacts that could occur as a result of construction activities.

There are no construction period criteria established for vibration effects on domestic animals; however, the Federal Railroad Administration (FRA) has established a 75 vibration velocity decibel (VdB) sensitivity criterion for ground-borne vibration impacts on institutional land uses (Category 3). Institutional land uses include schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for vibration to cause activity interference. Because there are no vibration effects criteria for domestic animals, the 75 VdB level of sensitivity to vibration is judged to be appropriate for animal husbandry operations. Project construction would be responsible for the greatest vibration annoyance effects, generating vibration levels of 75 VdB at up to 105 feet from the construction site. As with noise impacts, vibration impacts associated with construction of the at-grade segments of the Build Alternatives would be limited because livestock would not be in a confined situation and could move away from vibration sources.

Figure 3.14-16 Temporary Construction Areas Near Grazing Land

CEQA Conclusion

Construction of the six Build Alternatives would create noise and vibration impacts around the Build Alternatives' footprints which, due to their location or nature, could affect farm animals. However, installation of wildlife exclusion fencing during the construction period would preclude grazing animals from approaching the alignment at a proximity of 40 to 50 feet, where noise and vibration impacts would be the greatest. Implementation of AG-IAMF#4 through AG-IAMF#6 will ensure agricultural property owners are notified of noise impacts that could occur as a result of construction activities and would provide temporary livestock and equipment crossings during project construction. Additionally, livestock would not be in a confined area and could move away from construction noise and vibration sources. Therefore, changes to the existing environment for noise and vibration would not convert Important Farmland to a nonagricultural use. This impact would be less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives. CEQA does not require any mitigation.

Operations Impacts

Impact AG#7: Wind-Induced Effects.

This analysis considers whether wind-induced effects from HSR operations could lead to additional conversion of Important Farmlands. As shown on Figure 3.14-8 and Figure 3.14-9, the E1, E1A, E2, and E2A Build Alternative alignments would be at grade or on a viaduct near Important Farmland north of the SCE Vincent Substation and south of Blum Ranch, near Aliso Canyon Road.

During operations, the trains would induce airflow (that is, generate wind) along the sides and at the end of the train (known as *wake*). Studies summarized by the FRA found that the strength of the airflow depends on the distance from the train, the train's geometry (that is, the shape of the nose and end of the train), and the train's operating speed. FRA found that airflow dissipates in less than 1 second (FRA 1999). Another study found that wind generated by a train has a velocity of approximately 10 percent of the train velocity at a distance of 3 meters (approximately 10 feet) from the train (Neppert and Sanderson 1977). Therefore, an extrapolation of these studies for an HSR train traveling at 220 miles per hour (mph) indicates that it would generate a wind gust lasting less than 1 second at approximately 10 feet from the train tracks. Induced air flow from a train traveling at 220 mph is estimated at approximately 38.9 mph at the track where the train is passing. The speed of air flow decreases incrementally farther away from the moving train body. The guideway would be a minimum of 21 feet from the edge of the right-of-way (refer to Section 2.3.4, Infrastructure Components, in Chapter 2), and, in many cases, the guideway would be farther away (approximately 30 feet). In these areas, induced airflow is calculated to be less than 3 mph at the edge of the HSR right-of-way. The Important Farmland near the SCE Vincent Substation would be over 600 feet from the at-grade HSR tracks. At its closest point, the Important Farmland at Blum Ranch would be more than 1,000 feet from the at-grade HSR tracks. Therefore, the subject areas would not be affected by HSR-induced winds.

Research on honeybees has found that they forage when temperatures are 55 degrees Fahrenheit and higher, and they do not forage in rain or in wind stronger than 12 mph (Authority 2012). The winds generated by passing trains would equal or exceed 12 mph within 9 feet of the side of the train (Authority 2012c) when at grade. Therefore, farmland impacts induced by wind are likely to occur within approximately 10 feet of the train. However, the HSR right-of-way would include a buffer of at least 21 feet between the trains and the edge of the right-of-way. Furthermore, bees would aggregate where the crops are located. As noted above, areas of Important Farmland would be located well outside of the HSR right-of-way.

The HSR right-of-way would be 100 feet wide in rural locations. Since operation of Important Farmland would not occur within the HSR right-of-way, wind-induced impacts on blossoms and flowering trees and the creation of dust and pesticide drift could be expected to occur starting at the edge of the right-of-way, or 50 feet from the track centerline. Because the edge of the right-of-way is beyond the maximum distance for wind speed calculations (30 feet), winds induced by passing high-speed trains would not be excessive at the edge of the right-of way. Therefore,

wind-induced impacts on agriculture, such as impacts on blossoms and flowering trees and creation of dust and pesticide drift, are not anticipated.

CEQA Conclusion

The project would not permanently convert Important Farmland to a nonagricultural use as a result of wind-induced impacts during operations. Wind-induced impacts on agricultural operations, such as impacts on blossoms and flowering trees, can lead to the creation of dust and pesticide drift. However, because Important Farmland would be located well outside of the HSR right-of-way and wind-induced impacts would be expected to occur starting at the edge of the right-of-way, this impact would be minimal and would be the same for all six Build Alternatives. There would be no adverse wind-induced impacts on honeybees foraging as Important Farmlands (i.e., crops) would be located well outside the HSR right-of-way. Therefore, this impact would be less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives. CEQA does not require any mitigation.

Impact AG#8: Noise and Vibration Effects on Farm Animals.

During project operations, noise impacts on animals on grazing land could occur due to the rapid passage of high-speed trains as discussed in Section 3.4, Noise and Vibration. Operational noise assessment criteria assume that the noise exposure limit for livestock is 100 dBA from a passing train operating at 220 mph. The noise exposure limit would occur at approximately 40 to 50 feet from the track centerline if the track is at grade, and approximately 15 feet from the track centerline if the track is elevated. The noise exposure limit of a 100 dBA sound exposure level for domestic animals would be limited to locations within 40 to 50 feet of the aboveground alignment, which is typically within the fenced right-of-way. Such fencing would preclude grazing animals from approaching the alignment tracks at a proximity of 40 to 50 feet. Vibration caused by project operations near grazing land would be brief and intermittent. As with noise impacts, vibration impacts associated with operation of the Build Alternatives would be limited because livestock would not be in a confined situation and could move away from vibration sources.

CEQA Conclusion

Operations of the six Build Alternatives would not permanently convert Important Farmland to a nonagricultural use as a result of noise and vibration impacts due to the passage of trains. The noise exposure limit would occur at approximately 40 to 50 feet from the track centerline if the track is at grade, and approximately 15 feet from the track centerline if the track is elevated. Fences along the HST right-of-way would preclude livestock from approaching the alignment tracks at a proximity of 40 to 50 feet. Additionally, livestock in these areas would be unconfined and could move away from noise sources. Therefore, this impact would be less than significant for the Refined SR14, SR14A, E1, E1A, E2, and E2A Build Alternatives. CEQA does not require any mitigation.

3.14.7 Mitigation Measures

Direct and indirect impacts on Important Farmland resulting from the permanent conversion of Important Farmland and forest lands to a nonagricultural or non-timber use would be mitigated with the objective of conserving Important Farmland and forest land. Prescribed mitigation measures are based on the Statewide Program EIR/EIS (Authority and FRA 2005) mitigation strategies and the *Updated Methodology for Evaluation of Agricultural Land Impacts* (Authority 2017). The following mitigation measure (AG-MM#1) will be implemented for the Refined SR14 and SR14A Build Alternatives.

AG-MM#1: Design Utility Corridors to Avoid Agricultural Lands

The Authority will design and build electrical utility corridors to avoid placing structures on agricultural lands. This will entail coordination with the farm owners to ensure that electrical utilities are placed on poles with powerlines that span agricultural land uses, within the identified project footprint, so that no agricultural land would be converted to a nonagricultural use either directly or indirectly. Electrical utility lines are generally spaced from 125 to 300 feet apart and can often span over 1,000 feet between towers. Therefore, the electrical utility line could span the parcel of farmland for at least a length of approximately 250 feet without requiring conversion of

farmland for the relocation of electrical towers. Utility easements would not affect existing agricultural operations and activities.

3.14.7.1 Impacts of Mitigation

Mitigation Measure AG-MM#1 will require the Authority to space utility poles along the Refined SR14 and SR14A Build Alternative alignments to avoid a parcel of Important Farmland. This proposed utility corridor is within the footprint analyzed in this environmental document, and no secondary or offsite impacts would occur.

3.14.8 NEPA Impacts Summary

This section summarizes the impacts of the six Build Alternatives and compares them to the anticipated impacts of the No Project Alternative. Note, all six Build Alternatives would not result in impacts to land under Williamson Act, Farmland Security lands, or other similar farmland conservation easements. Table 3.14-7 provides a comparison of the impacts on Important Farmland and forest land for each of the Build Alternatives. This section reports impacts after implementation of the recommended mitigation measures.

Table 3.14-7 Comparison of the High-Speed Rail Build Alternative Impacts for Agricultural Farmland and Forest Land (acres)

Impacts	Build Alternative						NEPA Conclusion before Mitigation	Mitigation	NEPA Conclusion post Mitigation
	Refined SR14	SR14A	E1	E1A	E2	E2A			
Construction Impacts									
Impact AG#1: Temporary Use of Agricultural or Forest Land for Construction Staging, Material Laydown, and Access. There would be no direct temporary use of Important Farmland during the construction of each of the six Build Alternatives. The E2 and E2A Build Alternatives would not require temporary use of forest land during construction. Although construction of the Refined SR14, SR14A, E1, and E1A Build Alternative adit options could temporarily affect areas within the ANF, these areas are not managed for forest resources and would be returned to pre-construction conditions following construction.							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.1
Temporary Surface Use – Important Farmland	None								
Temporary Surface Use – Grazing Land (acres)	0 to 36	10 to 36	8	8	8	8			
Temporary Surface Use – Forest Land	Adit Option SR14-A1	Adit Option SR14-A1	Adit Option E1-A1 Adit Option E1-A2	Adit Option E1-A1 Adit Option E1-A2	None	None			
Impact AG#2: Permanent Conversion of Agricultural Land to Nonagricultural Land. The Refined SR14 and SR14A Build Alternatives would have 1 and less than 1 acre, respectively, of surface footprint located within an area of Important Farmland; the project would consist of an electrical utility line in this location. Because the utility lines could be placed on either side of the farmland with wires crossing overhead, no Important Farmland would be converted to nonagricultural use. The E1, E1A, E2, and E2A Build Alternatives would not result in permanent conversion of agricultural land to nonagricultural land.							**Refined SR14 and SR14A:** Adverse Effect **E1, E1A, E2, and E2A:** No Adverse Effect	AG-MM#1	**Refined SR14 and SR14A:** No Adverse Effect See Section 3.14.8.1 **E1, E1A, E2, and E2A:** N/A See Section 3.14.8.1

Impacts	Build Alternative						NEPA Conclusion before Mitigation	Mitigation	NEPA Conclusion post Mitigation
	Refined SR14	SR14A	E1	E1A	E2	E2A			
Impact AG#3: Permanent Conversion of Forest or Timberland to Non-Forest Use. Power lines extending from adit facilities associated with the Refined SR14, SR14A, E1, and E1A Build Alternatives would encounter undisturbed land supporting at least 10 percent native tree cover. Installation of the power lines could result in some vegetation removal or trimming, which could affect existing forest land. The Authority would apply for a Special Use Authorization from USFS, which would include conditions to avoid or minimize impacts on forest land or management of forest resources within the ANF. The E2 and E2A Build Alternatives would not entail permanent surface footprint within forest lands.							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.1
Impact AG#4: Temporary Utility and Infrastructure Interruption. Construction of the Refined SR14 and SR14A Build Alternatives would not affect irrigation. However, construction of the Refined SR14 and SR14A Build Alternatives would require the installation of a new electrical utility line across an area of Important Farmland to the north of the SCE Vincent Substation. The E1, E1A, E2, and E2A Build Alternatives would have the potential to affect access to Sierra Highway from this area of Important Farmland. In addition, the E1, E1A, E2, and E2A Build Alternatives would have the potential to affect access to Acton and SR 14 from Blum Ranch due to the use of Aliso Canyon Road as an access road during construction.							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.1
Impact AG#5: Interference with Aerial Spraying Activities. Each Build Alternative would require vertical structures, such as communication towers, utility poles, and elevated guideways, which would be widely and nearly evenly spaced along each alignment. The HSR structures of the greatest concern for aerial spraying would be the 100-foot-high radio communication towers that would be placed approximately every 3 miles along the alignment. Relocation of these towers would follow federal and state safety guidelines for each Build Alternative. Placement of these towers would not interfere with agricultural aerial spraying. No other project features would have the potential to interfere with aerial spraying**.**							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.1
Impact AG#6: Noise and Vibration Effects on Farm Animals. The E1, E1A, E2, and E2A Build Alternatives would involve construction of an at-grade and an above-grade segment that would traverse grazing land to the south of Blum Ranch. In addition, the Refined SR14, SR14A, E1, and E1A Build Alternatives would locate CSAs on grazing land. However, the HSR right-of-way would not be near or adjacent to any confined animal farming activities. Furthermore, installation of wildlife exclusion fencing during the construction period would preclude grazing animals from approaching the alignment at a proximity of 40 to 50 feet, where noise and vibration impacts would be the greatest. As indicated in the Impact AG#6 discussion, livestock near these fence lines can roam freely and therefore move away from any disturbance caused by construction activities.							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.1

Impacts	Build Alternative						NEPA Conclusion before Mitigation	Mitigation	NEPA Conclusion post Mitigation
	Refined SR14	SR14A	E1	E1A	E2	E2A			
Operations Impacts									
Impact AG#7: Wind-Induced Effects. The E1, E1A, E2, and E2A Build Alternatives would operate at grade or on a viaduct near Important Farmland north of the SCE Vincent Substation and south of Blum Ranch. Both areas of Important Farmland would be farther than 600 feet from the alignments and would not experience wind-induced effects. The Refined SR14 and SR14A Build Alternatives would not operate at grade near Important Farmland and would have no potential for wind-induced effects on Important Farmland.							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.2
Impact AG#8: Noise and Vibration Effects on Farm Animals During project operations, noise impacts on animals on grazing land could occur due to the rapid passage of high-speed trains. Fences would control access to the HSR right-of-way, and the right-of-way would be 100 feet wide in rural locations. The noise exposure limit of a 100 dBA sound exposure level for domestic animals would be limited to locations within 40 to 50 feet of the aboveground alignment, which is typically within the fenced right-of-way. Such fencing within the right-of-way would preclude grazing animals from approaching the alignment tracks at a proximity of 40 to 50 feet.							No Adverse Effect (All Build Alternatives)	No mitigation needed	N/A See Section 3.14.8.2

Acreage is rounded to the nearest whole number. These acreages represent a range for each Build Alternative footprint as the footprint would differ depending on which adit/window alternative is implemented
Authority = California High-Speed Rail Authority; dBA = A-weighted decibel; FMMP = Farmland Mapping and Monitoring Program; HSR = high-speed rail; USFS = United States Forest Service.

3.14.8.1 Construction Impacts

Construction activities of all six Build Alternatives would not have adverse impacts on important farmland. None of the Build Alternatives would use Important Farmland for temporary construction activities. However, depending on the adit and window options chosen, the E1 and E1A Build Alternatives could use forest land for CSAs near Little Tujunga Canyon Road. Although this area could be considered forest land due to the amount of tree cover, the area already contains development in the form of residential structures, utility lines, and roadways, and thus is not managed for forest resources.

The Refined SR14 and SR14A Build Alternatives include 1 acre and less than 1 acre, respectively, of permanent surface footprint across an area of Important Farmland north of the SCE Vincent Substation. However, the project footprint in this location would consist of an electrical utility line. Because the utility lines could be placed on either side of the farmland, with wires crossing overhead and spanning the property through implementation of Mitigation Measure AG-MM#1, no Important Farmland would be converted to nonagricultural use. The E1, E1A, E2, and E2A Build Alternatives would not result in permanent conversion of agricultural land to nonagricultural land.

Aboveground portions of the six Build Alternatives would not encounter forest lands outside of the ANF. Surface footprints associated with Refined SR14, SR14A, E1, and E1A Build Alternative adit options would intersect areas of the ANF that could be considered forest land; however, the surface footprint associated with the E2 and E2A Build Alternatives would not encounter areas that support 10 percent native tree cover or allow for the management of forest resources. The Refined SR14, SR14A, E1, and E1A Build Alternative adit options could temporarily affect forest land. However, these temporary impact areas would be located on private in-holdings that contain existing infrastructure, are not managed for forest resources, and would be restored to pre-construction conditions.

Permanent facilities associated with the Refined SR14, SR14A, E1, and E1A adit options include adit structures, power lines, and temporary water lines. Temporary water lines would continue along existing roadways and would not encounter potential forest land. Adit structures would be located on private in-holdings that contain existing infrastructure, including structures, utility lines, and roadway facilities, and are not managed for forest resources. Power lines extending from adit facilities associated with the Refined SR14, SR14A, E1, and E1A Build Alternatives could encounter potential forest land. Installation of the power lines could result in some vegetation removal or trimming, which could affect existing forest land. Large-scale vegetation removal is not envisioned to install power lines. The Authority would apply for a Special Use Authorization from the USFS, which would include conditions to avoid or minimize impacts on forest land or management of forest resources within the ANF.

Construction of the Refined SR14 and SR14A Build Alternatives would require the installation of a new electrical utility line across an area of Important Farmland to the north of the SCE Vincent Substation. However, this would not affect irrigation or access roads during construction. Although the E1, E1A, E2, and E2A Build Alternatives would not require the construction of an electrical utility line across Important Farmland, the construction activities would have the potential to affect access to Sierra Highway from this area of Important Farmland due to construction on both East and West Carson Mesa Road. In addition, the E1, E1A, E2, and E2A Build Alternatives would affect access to Acton and SR 14 from Blum Ranch due to the use of Aliso Canyon Road as an access road during construction. Therefore, temporary effects on utilities and infrastructure would be similar for the E1, E1A, E2, and E2A Build Alternatives, which would be greater than the Refined SR14 and SR14A Build Alternatives.

The construction of vertical structures associated with all six Build Alternatives would not adversely affect aerial spraying of Important Farmland. Construction of vertical structures would have a similar effect for the E1, E1A, E2, and E2A Build Alternatives because the same areas of farmland would be traversed in similar ways and communication towers would be placed approximately every 3 miles along these four Build Alternatives. Communication towers would be similarly spaced along the Refined SR14 and SR14A Build Alternatives. While communication

towers of the Refined SR14 and SR14A Build Alternatives could have similar effects on aerial spraying at the Important Farmland near the SCE Vincent Substation, where the alignments would be located less than 1 mile away, the Refined SR14 and SR14A Build Alternatives would be located more than 2.5 miles from Blum Ranch and more than 4.5 miles away from the Important Farmland near Arrastre Canyon Road. The Refined SR14 and SR14A Build Alternatives would not have the potential to affect aerial spraying at these locations. Electrical utility lines spanning the Important Farmland located within 1 mile of the Refined SR14 and SR14A Build Alternatives would be similar to existing electrical utility lines in the area, and therefore would not alter aerial spraying in this location.

Noise and vibration from the construction of each of the Build Alternatives would involve construction on or near existing grazing lands. The E1, E1A, E2, and E2A Build Alternative alignments would involve construction of at-grade and above-grade segments that would traverse grazing land to the south of Blum Ranch. In addition, the Refined SR14, SR14A, E1, and E1A Build Alternatives would locate CSAs on grazing land in Sylmar to the east of Veterans Memorial County Park and near the Interstate 210/SR 118 interchange. The E1 and E1A Build Alternative alignments would involve the most at-grade construction adjacent to grazing lands. However, livestock on both areas of grazing land would be in an unconfined situation and could move away from noise and vibration disturbances. Therefore, none of the Build Alternatives would be likely to affect livestock.

3.14.8.2 Operations Impacts

Operations of the six Build Alternatives would generate wind. Induced airflow is estimated to be approximately 2.43 mph at the edge of the HSR right-of-way for each of the Build Alternatives and would dissipate after approximately 1 second. Such induced wind would not pose a risk to spraying activities or honeybee foraging for the six Build Alternatives.

Operations of the six Build Alternatives would not permanently convert Important Farmland to a nonagricultural use as a result of noise and vibration impacts due to the passage of trains. The noise exposure limit would occur at approximately 100 feet from the track centerline if the track is at grade, and approximately 15 feet from the track centerline if the track is elevated. Fences would control access to the HSR right-of-way, and the right-of-way would be 100 feet wide in rural locations. Additionally, livestock in these areas would be unconfined and could move away from noise sources.

3.14.9 CEQA Significance Conclusions

Table 3.14-8 summarizes the project impacts, the level of significance before mitigation, mitigation measures, and the level of significance before and after mitigation. No impacts on farmland or forest land resulting from the Refined SR14, SR 14A, E1, E1A, E2, and E2A Build Alternatives would remain significant pursuant to CEQA after implementing the recommended mitigation measures.

Table 3.14-8 Summary of CEQA Significance Conclusions and Mitigation Measures for Agricultural Farmland and Forest Land

Impact	Level of CEQA Significance before Mitigation						Mitigation Measure	Level of CEQA Significance after Mitigation					
	Refined SR14	SR14A	E1	E1A	E2	E2A		Refined SR14	SR14A	E1	E1A	E2	E2A
Construction Impacts													
Impact AG#1: Temporary Use of Agricultural or Forest Land for Construction Staging, Material Laydown, and Access.	LTS	LTS	LTS	LTS	No Impact	No Impact	No mitigation measures are required	N/A	N/A	N/A	N/A	N/A	N/A
Impact AG#2: Permanent Conversion of Agricultural Land to Nonagricultural Land.	S	S	No Impact	No Impact	No Impact	No Impact	AG-MM#1 (Refined SR14/SR14A only)	LTS	LTS	N/A	N/A	N/A	N/A
Impact AG#3: Permanent Conversion of Forest or Timberland to Non-Forest Use.	LTS	LTS	LTS	LTS	No Impact	No Impact	No mitigation measures are required	N/A	N/A	N/A	N/A	N/A	N/A
Impact AG#4: Temporary Utility and Infrastructure Interruption.	LTS	LTS	LTS	LTS	LTS	LTS	No mitigation measures are required	N/A	N/A	N/A	N/A	N/A	N/A

Impact	Level of CEQA Significance before Mitigation						Mitigation Measure	Level of CEQA Significance after Mitigation					
	Refined SR14	SR14A	E1	E1A	E2	E2A		Refined SR14	SR14A	E1	E1A	E2	E2A
Impact AG#5: Interference with Aerial Spraying Activities.	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact	No mitigation measures are required	N/A	N/A	N/A	N/A	N/A	N/A
Impact AG#6: Noise and Vibration Effects on Farm Animals.	LTS	LTS	LTS	LTS	LTS	LTS	No mitigation measures are required	N/A	N/A	N/A	N/A	N/A	N/A
Operations Impacts													
Impact AG#7: Wind-Induced Effects.	LTS	LTS	LTS	LTS	LTS	LTS	No mitigation measures are required.	N/A	N/A	N/A	N/A	N/A	N/A
Impact AG#8: Noise and Vibration Effects on Farm Animals.	LTS	LTS	LTS	LTS	LTS	LTS	No mitigation measures are required	N/A	N/A	N/A	N/A	N/A	N/A

CEQA = California Environmental Quality Act; LTS = Less Than Significant; N/A = Not Applicable; S= Significant

3.14.10 United States Forest Service Impact Analysis

This section summarizes agriculture farmland and forest land effects associated with the six Build Alternatives on the ANF, including the SGMNM. As discussed in Section 3.14.2.1, the ANF does not contain designated farmland, TPZs, or timber operations. The Refined SR14 and SR14A Build Alternatives would require permanent facility surface footprint on private in-holdings located within the ANF, including the SGMNM. However, these private in-holdings do not meet the Cal. Public Res. Code, Section 12220(g) definition of forest land because they do not support 10 percent native tree cover.

Portions of electrical utility corridors would traverse over relatively undisturbed areas that could support 10 percent native tree cover and be considered forest land. Where electrical utility corridors associated with the Refined SR14 and SR14A Build Alternative adit facilities would affect forest trees, the Authority would be required to apply for a Special Use Authorization Permit and adhere to requirements to avoid or minimize impacts on forest land or management of forest trees within the ANF.

3.14.10.1 Consistency with Applicable United States Forest Service Policies

Appendix 3.1-B, USFS Policy Consistency Analysis, contains a comprehensive evaluation of relevant laws, regulations, plans, and policies relative to areas within the ANF, including the SGMNM. Policies in the Angeles National Forest Management Plan regarding agriculture farmland and forest land are related to USFS's ability to maintain forest land. This analysis determined that the Build Alternatives would be consistent with applicable policies pertaining to agriculture farmland and forest land because the ANF does not contain designated farmland, TPZs, or forest land meeting the Cal. Public Res. Code, Section 12220(g) definition.

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