**California High-Speed Rail Authority** 

# Palmdale to Burbank Project Section

Final Environmental Impact Report/ Environmental Impact Statement

**Appendix 3.1-B USFS Policy Consistency Analysis** 

**April 2024** 





The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.



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# **ACRONYMS AND ABBREVIATIONS**

AMMP Adaptive Management and Monitoring Program

ANF Angeles National Forest ASQ allowable sale quantity

Authority California High-Speed Rail Authority
BEIG best environmental design practices

BMP Best management practice

Caltrans California Department of Transportation
CDFW California Department of Fish and Wildlife

C.F.R. Code of Federal Regulations

EIR Environmental impact report

EIS Environmental impact statement

FLPMA Federal Land Policy and Management Act of 1976

FLSSC Fire and Life Safety and Security Committee

FRA Federal Railroad Administration

HSR High-speed rail

IAMF Impact Avoidance and Minimization Feature

LEO law enforcement officer

LMP Land Management Plan

LOP limited operating period

MM Mitigation Measure

NEPA National Environmental Policy Act
NFMA National Forest Management Act

NOAA National Oceanic and Atmospheric Administration

PCT Pacific Crest Trail

PFC proper functioning condition assessments

PMT Program Management Team

RC Regional Consultant

RCA Riparian Conservation Area

RDM Residual Dry Matter
RNA Research Natural Area

ROS Recreation Opportunity Spectrum

RSA Resource Study Area

SGMNM San Gabriel Mountains National Monument

SIA Special Interest Area
SIO Scenic Integrity Objective



SIP State Implementation Plan

SR State Route

SUA Special-use authorization

SWRCB State Water Resource Control Board

TEPCS Threatened, Endangered, Proposed, Candidate or Sensitive species

U.S.C. U.S. Code

USDA United Stated Department of Agriculture

USFS United States Forest Service

USFWS United States Fish and Wildlife Service

WUI Wildland/Urban interface



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#### 1 INTRODUCTION

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

- Section 2.10, Archaeological Resources Protection Act of 1979, was added.
- Table 3.1-B-2: Angeles National Forest (ANF) Land Management Plan Part 2 Policy Consistency Analysis was updated as to Water (WAT) 3-Hazardous Materials, Lands 3 Boundary Management, and ME 1-Minerals Management.
- Table 3.1-B-2: Angeles National Forest Land Management Plan Part 3 Policy Consistency Analysis was updated to include discussion of Place-Based Program Emphasis including Soledad Front Country, Angeles Uplands West, and The Front Country Places.
- Table 3.1-B-2: Angeles National Forest Land Management Plan Part 3 Policy Consistency Analysis was updated to exclude analysis of Aesthetic Management Standard S9 impacts outside the ANF.
- Table 3.1-B-2: Angeles National Forest Land Management Plan Part 3 Policy Consistency Analysis was updated to indicate consistent with Soil, Water, Riparian, and Heritage Standard S46.
- Table 3.1-B-3: San Gabriel Mountains National Monument Management Plan Policy Consistency Analysis was updated to indicate consistency with Biological Resources Goal 1.

Pursuant to the requirements of the National Environmental Policy Act (NEPA), this appendix assesses the consistency of the California High-Speed Rail (HSR) Palmdale to Burbank Project Section (project) Build Alternatives with applicable laws, regulations, plans, and policies governing proposed uses and activities within the national forests and national monuments; specifically, the ANF and the San Gabriel Mountains National Monument (SGMNM). Refer to Chapter 2, Alternatives, for a full description of HSR alignment and facilities proposed on lands under the jurisdiction of the United States Forest Service (USFS). Section 2 describes the applicable laws and regulations, Section 3 describes implementing guidance of the laws and regulations, and Section 4 analyzes consistency with specific policies and regulations of the adopted plans for ANF and SGMNM.

Specifically, NEPA requires the identification of possible conflicts between the proposed action and the objectives of federal, regional, State, and local (and in the case of a reservation, Indian Tribe) land use plans, policies and controls for the area concerned (40 Code of Federal Regulations [C.F.R.] 1502.16[c]).

## 2 USFS-RELATED LAWS, REGULATIONS AND LEGAL FRAMEWORK

National forests, national monuments, and their respective operations are governed by and operated under various laws, regulations, plans and proclamations. The discussion below identifies and describes the laws, regulations, plans, policies and proclamations pertaining to the ANF and to the SGMNM that would be applicable to the HSR Project Section.

## 2.1 American Antiquities Act of 1906 (16 U.S.C. §§ 431–433)

The Antiquities Act of 1906, as amended, (54 U.S.C. § 320301 et seq.) requires protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands. The Antiquities Act also grants the President authority to designate national monuments to protect objects of historic or scientific interest. Section 2 of the Antiquities Act authorizes the President to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest situated on the lands owned or controlled by the Government of the United States to be national monuments, and to reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the



smallest area compatible with the proper care and management of the objects to be protected. This Act was used in 2014 to establish the SGMNM.

#### 2.1.1 Proclamation of San Gabriel Mountains National Monument

On October 10, 2014, President Barack Obama signed a proclamation, pursuant to the authority specified in the Antiquities Act of 1906, designating 346,177 acres of existing USFS lands within the ANF and the San Bernardino National Forest as the San Gabriel Mountains National Monument (SGMNM); the SGMNM is the eighth national monument under USFS management. The proclamation describes the historic landmarks, historic and prehistoric structure, and other objects of historic or scientific interest that warrant proper care and management within the proclaimed area. Additionally, it affirms the continuation of certain existing uses, including tribal rights to use the lands in traditional manners, and recognizes the ongoing validity of certain existing rights, such as those for utilities and water infrastructure.

The proclamation ordered that the administration of these activities continue, but in a manner consistent with the intent of the proclamation. Federal lands and interests in lands within SGMNM boundaries were removed from disposition under all laws relating to mineral and geothermal leasing, except for valid existing mining rights. The proclamation also required the preparation of a monument management plan as well as a transportation plan, mandating that the management framework be developed in a collaborative manner. The SGMNM Management Plan was developed according to the new USFS planning regulations referred to as the 2012 Forest Service Planning Rule (refer to Section 3.2). Section 4.3 reviews the HSR Project for consistency with the proclamation and the SGMNM Management Plan which was finalized in May 2019.

## 2.2 Wilderness Act (16 U.S.C. §§ 1131–1136)

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

Designated wilderness areas have limited allowable uses in order to maintain their natural character. Prohibitions include commercial enterprises, roads (except for emergency access); motor vehicles, motorized equipment or motorboats, landing of aircraft, other forms of mechanical transport, and structures or installations. USFS has developed a management plan which includes allowable and prohibited uses within wilderness areas established within the ANF.

## 2.2.1 Magic Mountain Wilderness Area

There is one designated wilderness area located within the ANF. The Magic Mountain Wilderness Area is located east of the City of Santa Clarita. The HSR Project alternatives do not include any surface or subsurface activities or facilities within the Magic Mountain Wilderness Area. The Refined SR14 and SR14A Build Alternatives would travel under the ANF north and west of the Magic Mountain Wilderness Area, while the E1, E1A, E2, and E2A Build Alternatives would travel under the ANF east of the Magic Mountain Wilderness Area. As a result, the HSR Build Alternatives would not result in direct or indirect effects on the wilderness area.

# 2.3 National Trails System Act of 1968 (Public Law 90-543, as amended through Public Law 109-418)

The National Trails System Act instituted a national system of recreation, scenic, and historic trails by designating the Appalachian Trail and the Pacific Crest Scenic Trail (PCT) as the initial components of that system and by prescribing the methods and standards according to which additional components may be added to the system. It establishes four classes of trails: national scenic trails, national historic trails, national recreation trails, and side and connecting trails.



#### 2.3.1 Pacific Crest Scenic Trail

The PCT traverses the Palmdale to Burbank Project Section and includes segments through the ANF, however, the HSR Build Alternative alignments do not intersect or affect the PCT within ANF.

# 2.4 Multiple-Use Sustained Yield Act of 1960 (16 U.S.C. 528-31)

The Multiple-Use Sustained Yield Act of 1960 addresses the establishment and administration of national forests to provide for multiple-use and sustained yield of products and services, including recreation, range, timber, watershed, and wildlife and fish purposes. The purposes of this act are supplemental to the purposes for which the national forests were established as set forth in the act (16 U.S.C. 465).

Under this act, the Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the national forests for multiple-use and sustained yield of the several products and services obtained therefrom. In the administration of the national forests due consideration shall be given to the relative values of the various resources in particular areas. The establishment and maintenance of areas of wilderness as enforced by the regulations in the USFS management plans (discussed in Consistency with Adopted Plans), are consistent with the purposes and provisions of this Act.

# 2.5 Government Performance and Results Act of 1993 (Pub. Law 103–62)

The Government Performance and Results Act of 1993 (GPRA), as amended, established project planning, strategic planning, and set up a framework of reporting for agencies to show the progress they make toward achieving their goals. The following national strategic goals were articulated by USFS for its 2003 National Forest Strategic Plan and are implemented through the land management plans for all forests under USFS oversight:

- National Strategic Plan Goal 1 Reduce the risk from catastrophic wildland fire
- National Strategic Plan Goal 2 Reduce the impacts from invasive species
- National Strategic Plan Goal 3 Provide outdoor recreation opportunities
- National Strategic Plan Goal 4 Help meet energy resource needs
- National Strategic Plan Goal 5 Improve watershed condition

## 2.6 National Forest Management Act of 1976 (16 U.S.C. § 1600)

The National Forest Management Act (NFMA) is the primary statute governing the administration of national forests. which called for the management of renewable resources on national forest lands. NFMA requires the Secretary of Agriculture to assess forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. The management of the Nation's renewable resources is highly complex and the uses, demand for, and supply of the various resources are subject to change over time. The public interest is served by USFS in cooperation with other agencies through assessment of the forest system's renewable resources, as well as the development and preparation of a national renewable resource program. This program is periodically reviewed and updated as renewable resources and their value change over time. The renewable resource program must be based on a comprehensive assessment of present and anticipated uses, demand for, and supply of renewable resources from the Nation's public and private forests and rangelands, through analysis of environmental and economic impacts, coordination of multiple-use and sustained-yield opportunities as provided in the Multiple-Use Sustained-Yield Act of 1960, and public participation in the development of the program. Regulations guiding the preparation and revision of such management plans are found in Section 6 of NFMA, National Forest System Land Management Planning, and is referred to as



the 2012 Forest Planning Rule (36 C.F.R Part 219). These implementing regulations are discussed in Section 3.2.

This Act establishes policies and directives regarding the management of national forests based on:

- Reports on Fiber Potential, Wood Utilization by Mills, Wood Wastes and Wood Product Recycling
- Reforestation
- Renewable Resources Program
- National Forest System Resource Planning
- National Participation
- Other Management Considerations and Implementation Limitations

The 2012 Forest Planning Rule (which is discussed in detail in Section 3.2) implements these policies through the Land Management Plan for the Southern California National Forests.

# 2.7 Federal Land Policy and Management Act of 1976 (43 U.S.C. § 1761-1771)

The Federal Land Policy and Management Act of 1976, as amended, (FLMPA) provides for the protection and management of public lands administered by the Bureau of Land Management and lands under the management of the U.S. Forest Service. Section 501(a) of FLPMA authorizes the Secretary of Agriculture to grant, issue, or renew rights-of-way through National Forest System lands, except designated wilderness, for a variety of uses. These uses may include railroads, tunnels, or other necessary means of transportation that are in the public interest (43 U.S.C. § 1761[a]). Section 505 of FLPMA provides that right-of-way authorizations are required to provide terms and conditions that will, among other things, minimize damage to scenic and aesthetic values and fish and wildlife habitat and otherwise protect the environment, and require compliance with applicable air and water quality standards established by or pursuant to applicable federal or state law (43 U.S.C. § 1765). Regulations guiding the issuance of special-use authorizations are found in Forest Service, Department of Agriculture (Title 36 C.F.R., Chapter II, part 251, subpart B), under Special Uses. The consistency of the HSR Project with the requirements for special-use authorizations (SUA) are discussed in Section 4.

## 2.8 Organic Administration Act of 1897

The Organic Administration Act of 1897, under which most national forests were established, states: "No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States...". Since then, a series of Acts have expanded or otherwise redefined these purposes.

# 2.9 Forest and Rangeland Renewable Resource Planning Act of 1974

The Forest and Rangeland Renewable Resources Planning Act of 1974 (or RPA) authorizes long-range planning by the United States Forest Service to ensure the future supply of forest resources while maintaining a quality environment. In recognition of the vital importance of America's renewable resources of the forest, range, and other associated lands to the Nation's social and economic well-being, and of the necessity for a long-term perspective in planning and undertaking related national renewable resource programs (16 U.S.C. § 1601). RPA requires that a renewable resource assessment and a Forest Service plan be prepared every ten and five years, respectively, to plan and prepare for the future of natural resources.



# 2.10 Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act of 1979 (ARPA) provides an important part of the overall statutory basis for effective archaeological resource management in the United States. ARPA was enacted "to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data which were obtained before October 31, 1979" (16 U.S.C. §470aa [b]).

#### 3 IMPLEMENTING REGULATIONS AND GUIDANCE

# 3.1 Parks, Forestry, and Public Property (36 C.F.R. Chapter II – Forest Service, Department of Agriculture)

The Parks, Forestry, and Public Property chapter of the regulations establishes the special-use authorization requirements. The regulations provide for a two-tiered screening process for USFS to determine whether to accept and process an application for an SUA. A primary screening criterion is consistency with the applicable forest plan (36 C.F.R. § 251.54 [e][2]). Applicable requirements in the initial screening criteria include, but are not limited to:

- (i) The proposed use is consistent with the laws, regulations, orders, and policies establishing or governing National Forest System lands, with other applicable federal law, and with applicable State and local health and sanitation laws.
- (ii) The proposed use is consistent or can be made consistent with standards and guidelines in the applicable forest land and resource management plan prepared under the National Forest Management Act and 36 C.F.R. part 219.
- (iii) The proposed use will not pose a serious or substantial risk to public health or safety.
- (iv) The proposed use will not create an exclusive or perpetual right of use or occupancy.
- (v) The proposed use will not unreasonably conflict or interfere with administrative use by the Forest Service, other scheduled or authorized existing uses of the National Forest System, or use of adjacent non-National Forest System lands.
- (vi) The proposed use does not involve disposal of solid waste or disposal of radioactive or other hazardous substances (36 C.F.R. § 251.54[e]).

If USFS determines that an application meets the minimum requirements identified in the initial screening, then it proceeds to evaluate the application against the following five criteria, any one of which would require rejection of the application:

- (a) The proposed use would be inconsistent or incompatible with the purposes for which the lands are managed, or with other uses; or
- (ii) The proposed use would not be in the public interest; or
- (iii) The proponent is not qualified; or
- (iv) The proponent does not or cannot demonstrate technical or economic feasibility of the proposed use or the financial or technical capability to undertake the use and to fully comply with the terms and conditions of the authorization; or
- (v) There is no person or entity authorized to sign a special-use authorization and/or there is no person or entity willing to accept responsibility for adherence to the terms and conditions of the authorization (36 C.F.R. § 251.54[e][5][i]-[v]).



An application for an SUA will be required for all Build Alternatives because they cross National Forest System lands. The consistency of the HSR Project with the applicable requirements listed above is evaluated in Table 3.1-B-1 through Table 3.1-B-3.

#### 3.2 2012 Forest Planning Rule (36 C.F.R. Part 219)

The 2012 Forest Planning Rule of NFMA requires every national forest or grassland managed by USFS to develop and maintain a land management plan, also known as a forest plan. The process for the development and revision of plans, along with the required content of plans, is outlined in planning regulations, often referred to as the planning rule. In addition, the overarching policies and goals in the NFMA and GPRA are implemented through more specific policies in land management plans. Managers of individual forests and grasslands follow the direction of the planning rule to develop a land management plan specific to their unit. The revised land and resource management plans (forest plans) for the Southern California National Forests (which include Angeles, Cleveland, Los Padres and San Bernardino) describe the strategic direction at the broad program-level for managing the land and its resources for a horizon of 10 to 15 years, after which it must be updated. The organization of the forest plan includes three parts: Part 1 is the Vision, Part 2 is the Strategy, and Part 3 is the design criteria. Parts 1 and 3 of the Forest Plan apply to all Southern California National Forests, while Part 2 is the ANF Forest Strategy and is specific to the management of the ANF. All three parts of the forest plan were amended on May 30, 2019, in part based on public input received during the preparation of the SGMNM Management Plan.

The SGMNM Management Plan was also developed pursuant to the 2012 Forest Service Planning Rule. However, the directive to prepare the SGMNM Management Plan came from the Presidential Proclamation (see Section 2.1.1) which mandated the preparation of a monument management plan. The ANF and SGMNM Management Plans discussed below are established under this planning rule. Specific relevant policies in each plan have been identified and evaluated as part of this analysis in Section 4.3.

# 3.3 U.S. Forest Service Heritage Strategy and Program

Lands under the management of USFS are subject to a wide variety of laws, executive orders, management policies and regulations, which implement directives and strategies that are then implemented through the Forest Service Manuals (FSMs) and Forest Service Handbooks (FSHs). The USFS Heritage Strategy is an overarching statement of policy to protect and preserve prehistoric and historic resources on USFS lands. The Heritage Program Management is described in FSM Section 2300, Chapter 2360. The Heritage Program Management Handbook (Heritage Handbook) is found at FSH 2309.12. The Heritage Handbook contains the implementing regulations, roles and responsibilities for carrying out Heritage Program Management. These regulations and policies are incorporated in both the land management plans and permit authorization requirements for projects on USFS land. Because the basis for the Heritage Program is based on the same requirements under Section 106, project compliance with Section 106 meets most of the requirements of the Heritage Program, including the disposition of: archaeological, historic and prehistoric resources, and coordination with Native American tribes. Refer to Chapter 3.17 for the full explanation of the Section 106 process, cultural resources and tribal consultation. In addition, both the ANF Land Management Plan and SGMNM Management Plan include heritage resource policies, which are included in Section 4 below.

Consultation with USFS regarding the Heritage Resources on USFS lands would be required and included as a condition of a Special-Use Authorization permit and pursuant to the Section 106 Programmatic Agreement.

#### 4 CONSISTENCY WITH ADOPTED PLANS

This section includes an analysis of the proposed HSR segment Build Alternatives with specific policies of applicable adopted plans, the ANF Land Management Plan and the SGMNM Management Plan. Table 3.1-B-1 through Table 3.1-B-3 contains the consistency analysis.



# 4.1 Angeles National Forest Land Management Plan – Part 2: Strategy

The Angeles National Forest Land Management Plan (LMP) – Part 2: Strategy is one of the three-part forest plans for the Southern California National Forests (United States Forest Service 2005). Part 2 includes the specific policies and regulations pertaining to ANF and its management strategy of the ANF Land Management Plan. This plan establishes goals and desired conditions for the approximately 700,000-acre ANF and defines tools that the resource staff can use in order to accomplish these goals. These goals and objectives are expected to result in the sustainability (social, economic, and ecological) of the ANF and, over the long-term, the maintenance of a healthy forest. The plan defines and describes specific land use zones within the ANF. These zones are an on-the-ground manifestation of the desired conditions and are the primary tools used to describe the strategic direction, including the management intent and suitable uses for areas of the national forest where the zone is used. The consistency assessment column in Table 3.1-B-1 evaluates the consistency of the HSR Build Alternatives with the sections and policies of the Angeles National Forest Land Management Plan. These discussions refer to Chapter 3 of the Final EIR/EIS, and frequently include references to IAMFs and mitigation measures described therein.



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Table 3.1-B-1: Angeles National Forest Land Management Plan – Part 2 Policy Consistency Analysis

Relevant Sections	Consistency Assessment	
Tribal Cultural Resources		
<b>Tribal 1 – Traditional and Contemporary Uses:</b> Allow traditional uses, access to traditionally used areas, as well as contemporary uses and needs by tribal and other Native American interests:		
Protect, conserve, and restore traditionally or contemporarily used resources. Opportunities for traditional use of the national forest and national forest resources are improved and provisions are made to offer access to sites with cultural significance. Use opportunities during project planning and implementation to identify, enhance, and protect traditionally or contemporarily used resources.	<b>Consistent.</b> As discussed in Section 3.17, Cultural Resources, the Authority has actively engaged tribal governments. In addition, the Authority would implement IAMFs and mitigation measures to identify and preserve cultural resources within the RSA. Refer to Section 3.17, Cultural Resources, for additional information.	
<ul> <li>Maintain opportunities for spiritual solitude for tribal groups and individuals. Retain the character of traditional sites in conditions consistent with traditional cultural uses.</li> </ul>		
<ul> <li>Establish effective partnerships to address issues of mutual concern (plant material propagation, etc.).</li> </ul>		
<ul> <li>Work collaboratively with tribes to determine appropriate locations and levels for gathering traditional plant materials.</li> </ul>		
Tribal 2 - Government to Government Relations: Establish effective relationships with federally recognized tribes:		
<ul> <li>Using the National Tribal Relations Strategy, develop government-to-government protocols with all recognized tribes and organized groups of local Native Americans within this planning cycle.</li> </ul>	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS abilities to establish relationships with federally recognized tribes.	
<ul> <li>Develop protocols to promote collaborative partnerships for heritage resource management, ecosystem restoration, comprehensive fire planning, and to recognize historic Native American access rights to land areas and resources.</li> </ul>		
Adaptive Management		
<b>AM 1 - Land Management Plan Monitoring and Evaluation:</b> Report the results of land management plan monitoring and evaluation questions in the annual monitoring and evaluation report, including the actions taken to respond to new information learned through the adaptive management cycle:	Not Applicable. The Build Alternatives would not interfere with the USFS's	
<ul> <li>Amend the land management plan as necessary in response to monitoring and evaluation.</li> </ul>	abilities to update the Land Management Plan and conduct resource inventories.	
<ul> <li>Implement adaptive management measures designed to redirect activity outcomes toward improved environmental protection.</li> </ul>		
<ul> <li>Manage recreation opportunities to respond to changing visitor demographic profiles.</li> </ul>		

**Relevant Sections** 



**AM 2 - Forest-wide Inventory:** Develop and maintain the capacity (processes and systems) to provide and analyze the scientific and technical information needed to address agency priorities including:

- Develop and use databases and monitor the results to track and display the cumulative effects of forest plan implementation.
- Conduct surveys within suitable habitat to determine presence of threatened and endangered species.
- Survey suitable habitat for federally listed and Region 5 sensitive species. Update all maps and databases as information is obtained.
- Survey wetlands, vernal pools, meadows, springs and stringer meadows for plant and wildlife species (e.g., spring snails).
- Identify and map all riparian areas.
- Inventory geologic resources (fossils, caves, groundwater basins and extractions, geologic special interest areas, geologic features along scenic corridors, etc.) that are available to the public, affecting other resource areas, or needing special management or protection.
- Identify and mitigate geologic hazards (seismic activity, landslides, land subsidence, flooding and erosion) through landscape and watershed planning, sediment placement site planning, engineering design, reclamation and maintenance.
- Inventory water extractions, diversions, miles/acres of streams, acres of water bodies, acres of riparian, etc.
- Study and identify how rock types and geomorphic processes directly affect soil type development, geotechnical conditions for excavations and construction activities, vegetative type distribution and development, and variation in species habitat. Develop an improved understanding of the relationships of geologic resources and hazards to ecologic functions and patterns as they apply to the management of national forest lands and the effects of fire.
- Conduct integrated inventories of ecologic functions (ecological unit inventory) at the scale appropriate to the need.
- Complete invasive nonnative plant and animal inventories based on regional protocol methods.
- Work with the appropriate agencies and academic sources to develop protocols and survey guidelines, gathering current information and identifying additional research needs for resource management. Implement research as opportunities occur. Priority wildlife studies:
- Ecological revegetation and restoration and mine reclamation techniques.
- Effects of nonnative species and effects of management activities on threatened, endangered, proposed, candidate and sensitive species habitat.
- Effects of cowbird interactions to vireos and flycatchers.

**Not Applicable.** The Build Alternatives would not interfere with the USFS's abilities to conduct a forest-wide inventory. Further, the Authority would prepare and implement a long-term Adaptive Management and Monitoring Program (AMMP), described in HWR-MM#4, which includes monitoring protocols for surface water resources. Monitoring conducted as part of the AMMP would support USFS's abilities to maintain the capacity to analyze scientific and technical information within the ANF.

**Consistency Assessment** 



Relevant Sections	Consistency Assessment
<ul> <li>Best methods for removal of exotic species (bullfrog, etc.).</li> </ul>	
<ul> <li>Results of the removal of nonnative species from threatened, endangered, proposed, candidate, and sensitive species habitat.</li> </ul>	
<ul> <li>Effects of off-highway vehicle disturbances and other recreation activities on wildlife.</li> </ul>	
<ul> <li>Validation of use of habitat linkages.</li> </ul>	
<ul> <li>Effects of national forest product removal on other resources.</li> </ul>	
<ul> <li>Effects of management activities on oak regeneration.</li> </ul>	
<ul> <li>Additional information on species-specific habitat use and distribution on National Forest System land.</li> </ul>	
Validation of watershed standards for cumulative effects (less than 20 percent manipulation/yr and less than 40 percent over five years).	
Wildlife	
WL 1 - Threatened, Endangered, Proposed, Candidate, and Sensitive Species Management: Prevent listing of proposed and sensitive species.	Manage habitat to move listed species toward recovery and de-listing.
Implement priority conservation strategies (see table 528 Angeles NF Conservation Strategy).	<b>Consistent.</b> The Authority designed the Build Alternatives such that they avoid significant wash and open space areas within the ANF to protect sensitive species. Where impacts cannot be avoided, the Authority has proposed mitigation measures to address impacts to special-status species. For a detailed discussion of these measures, refer to Section 3.7, Biological Resources and Wetlands.
Use vegetation management practices to reduce the intensity of fires to reduce habitat loss due to catastrophic fires.	Consistent. Implementation of BIO-MM#54 involves preparation and implementation of an Annual Vegetation Control Plan (VCP). The Authority will prepare a VCP to address vegetation removal for the purpose of maintaining clear areas around HSR facilities and reducing the risk of fire.
Work with the U.S. Fish and Wildlife Service (USFWS) to develop recovery plans for federally listed species. Implement Forest Service actions as recommended in recovery plans for federally listed species.	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to develop recovery plans for federally listed species.
Establish and maintain a working relationship with county and city governments to ensure coordination on development projects adjacent to the national forest, as well as implementation of multi-species habitat conservation plans.	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to establish relationships with county and city governments regarding development projects adjacent to the ANF.
Coordinate with California Department of Fish and Game (CDF&G) regarding fish stocking and nonnative fisheries management to implement measures to resolve conflicts with threatened, endangered, proposed, candidate, and sensitive species and habitats.	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to coordinate with the California Department of Fish and Game regarding fisheries management.



Relevant Sections	Consistency Assessment
Recommend mineral withdrawal when needed to provide species protection over the long-term.	Not Applicable. The Build Alternatives does not propose mineral withdrawal.
WL 2 - Management of Species of Concern: Maintain and improve habitat for fish, wildlife, and p species, management indicator species, and watch list species.	lants, including those with the following designations: game species, harvest
Manage State of California designated Wild Trout streams to maintain high-quality habitat for wild trout populations.	Not Applicable. The Build Alternatives would not encounter designated Wild Trout streams within the ANF and would not interfere with the USFS's abilities to manage designated Wild Trout streams (CDFW 2019).
Coordinate and form partnerships with the CDF&G and other cooperators such as Partners in Flight to maintain and improve fish, wildlife and plant habitat.	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to coordinate with the California Department of Fish and Game to maintain and improve fish, wildlife, and plant habitat.
Monitor habitat for ecological health indicators (e.g., tamarisk, aquatic macroinvertebrates, bullfrogs).	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to conduct habitat monitoring.
Develop and maintain wildlife water sources and other habitat improvement structures.	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to develop and maintain wildlife water sources and other habitat improvement structures.
Protect habitat during fire suppression activities where feasible.	<b>Not Applicable.</b> The Build Alternatives do not propose fire suppression activities and would not interfere with the USFS's abilities to protect habitat during fire suppression activities.
Cooperate with other agencies, partners, and other national forest programs to maintain and improve landscape level habitat conditions and ecological processes over the long-term for landscape linkages, wildlife movement corridors, key deer and bighorn sheep fawning, lambing, and winter ranges, and raptor nesting sites.	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to coordinate with other agencies to improve landscape level habitat conditions.
Invasive Species	
<b>IS 1 - Invasive Species Prevention and Control:</b> Prevent the introduction of new invaders, conduinfestations:	act early treatment of new infestations, and contain and control established
Implement the Noxious Weed Management Strategy for the four southern California national forests.	Not Applicable. The Build Alternatives would not interfere with the USFS abilities to implement the Noxious Weed Management Strategy within the ANF.



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Limit ground disturbance to the minimum area necessary during project activities. Promote conditions to enhance the recovery of vegetation in project planning, design, and implementation. Use native plant materials as needed to restore disturbed sites to prevent the introduction or reintroduction of invasive nonnative species. Conduct follow-up inspections of ground-disturbing activities to monitor the effectiveness of restoration efforts in reducing or preventing the introduction or reintroduction of invasive nonnative plants.	Consistent. Construction of any of the Build Alternatives could require ground disturbance and native vegetation removal within portions of the ANF. However, the Restoration and Revegetation Plan (BIO-MM#6) would ensure that temporarily disturbed areas be restored to pre-project conditions. Preparation and implementation of the Annual Vegetation Control Plan (BIO-MM#54) and Weed Control Plan (BIO-MM#55) would involve continuous monitoring of the effectiveness of invasive plant control efforts in the area where construction occurred.
When setting priorities for treating invasive species, consider the rate of spread, the likeliness of environmental harm resulting from the establishment and spread of the invasive nonnative species; the geographical location within the watershed, and the sensitivity of the location, especially invasions occurring within occupied or potential habitat for threatened, endangered or proposed species or within special management areas, such as research natural areas, special interest areas, and wildernesses; and the probability that the treatment(s) will be successful.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, BIO-MM#54 and BIO-MM#55 would require the Authority to implement an Annual Vegetation Control Plan and a Weed Control Plan to manage invasive species within the HSR Build Alternative footprints.
Prevent the introduction of invasive species and coordinate the treatment of invasive species across jurisdictional boundaries. Coordinate internally, as well as with local, state and federal agencies and permittees to prevent future introductions of invasive species through stocking, recreation use, special-use authorizations and all other national forest management and emergency activities or decisions that could promote additional invasions. Emphasize using weed management areas to consolidate and coordinate weed prevention and treatment efforts across jurisdictional boundaries.	Not Applicable. The Build Alternatives would not interfere with the USFS abilities to coordinate the treatment of invasive species across jurisdictional boundaries.
Routinely monitor noxious weed control projects to determine success and to evaluate the need for follow-up treatments or different control measures. Monitor known infestations as appropriate in order to determine changes in density and rate of spread.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would implement an Annual Vegetation Control Plan (BIO-MM#54) and a Weed Control Plan (BIO-MM#55) to manage invasive species within the HSR Build Alternative footprints.
Treatments may include herbicide application if approved through environmental analysis.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority's Annual Vegetation Control Plan (BIO-MM#54) may involve the use of herbicides that have been approved for use by the California Department of Transportation.
Facilitate research opportunities for invasive nonnative species management on National Forest System lands.	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS abilities to facilitate research opportunities for invasive nonnative species management.

degrade, low-elevation (below 2,000 feet) chaparral.



Relevant Sections	Consistency Assessment
Forest Health	
<ul> <li>FH 1 - Vegetation Restoration: Restore vegetation through reforestation or other appropriate methods after stand-replacing fires, drought, or other events or activities that degrade or cause a loss of plant communities.</li> <li>Where needed, implement reforestation using native tree species grown from local seed sources. In such plantings, consider long-term sustainability of the forest vegetation by taking into account factors such as fire regime and regional climate. Consider small nursery operations to facilitate reforestation and to improve restoration success where direct seeding is ineffective. Use noxious-weed-free seed in all plantings.</li> </ul>	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would implement a Restoration and Revegetation Plan (BIO-MM#6) to address temporary ground disturbance within areas that potentially support special-status species, wetlands, and/or other resources. Restoration activities may include but not be limited to grading landform contours to approximate pre-disturbance conditions, revegetating disturbed areas with native plant species, and using certified weed-free straw and mulch.
FH 2 - Prevention of Fire-Induced Type Conversion: Minimize vegetation type conversion (permanent or long-term loss of plant communities) resulting from frequent fires:	
<ul> <li>Promote intervals greater than 35 years between fires in all coastal sage scrub types to reduce the likelihood that they will be converted to annual grasslands or other vegetation types. Within the range of the California gnatcatcher, treat chaparral adjacent to coastal sage scrub to reduce the threat of wildland fire and/or to reduce the intensity of fires that burn into it.</li> <li>Protect subalpine forest and woodlands from stand-replacing fires.</li> </ul>	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would prepare an Annual Vegetation Control Plan (BIO-MM#54) to address vegetation removal for the purpose of maintaining clear areas around facilities, reducing the risk of fire, and controlling invasive weeds during operation of the Build Alternatives. Such efforts
<ul> <li>Protect closed-cone woodlands and forests (Coulter) with developing cone banks until they are sufficiently large to perpetuate stands after fire. In Coulter pine woodlands not growing in chaparral, or other highly flammable vegetation types, reduce the potential for high-intensity, stand-replacing fires.</li> </ul>	would not interfere with fire-induced conversion within the ANF.  Furthermore, as discussed in Section 3.11, Safety and Security, the Authority would form a statewide Fire and Life Safety and Security
<ul> <li>Protect desert woodlands (e.g., pinyon-juniper) and desert scrub vegetation from burning outside the desired range of variability. After fires, protect these types from disturbances and additional fires to ensure natural regeneration, except where more frequent fires have played a role in the maintenance of the vegetation type.</li> </ul>	Committee (FLSSC) to comply with state and local fire code standards and hazard programs during project design. The Authority would invite the USFS to participate in the FLSSC to ensure incorporation of applicable vegetation protection policies outlined in the ANF Land Management Plan
<ul> <li>Emphasize fire prevention and fuel break maintenance to reduce the number of fires burning at excessively short fire-return intervals (less than 25 years) that have degraded, or could</li> </ul>	(LMP).



Relevant Sections	Consistency Assessment
<b>FH 3 - Restoration of Forest Health:</b> Protect natural resource values at risk from wildland fire loss that are outside the desired range of variability, or where needed for wildlife habitat improvement:	
Implement vegetation management activities to reduce tree densities and fuel loading in yellow pine and mixed conifer forests to levels similar to those that characterized forests of the pre-suppression and early suppression eras (ca. 1880-1930). Restore species composition comparable to forests of the same era with an emphasis on increasing the relative abundance of large-diameter (greater than 24 inches diameter breast height), shade-intolerant conifer species.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would prepare an Annual Vegetation Control Plan (BIO-MM#54) to address vegetation removal for the purpose of maintaining clear areas around facilities, reducing the risk of fire, and controlling
Implement vegetation treatments that improve the health of Coulter pine forests and woodlands growing in chaparral. Focus treatments on stands greater than 35 years, except where it is necessary to protect life and property. In the latter case, treatments may occur in stands greater than 20 years so long as cone-seed banks are adequate to perpetuate the stands.	invasive weeds during operation of the Build Alternatives. Such efforts would not interfere with fire-induced conversion within the ANF.  Furthermore, as discussed in Section 3.11, Safety and Security, the Authority would form a statewide FLSSC to comply with state and local fire
<ul> <li>Remove ladder fuels and forest floor fuel accumulations to protect stands of bigcone Douglas- fir from stand-replacing crown fires. Reduce fuel loading in chaparral adjacent to fir stands so that future wildland fires are less likely to initiate crown fires from surrounding shrublands.</li> </ul>	code standards and hazard programs during design of the Build Alternatives. The Authority would invite the USFS to participate in the FLSSC to ensure incorporation of applicable vegetation protection policies
<ul> <li>Treat fuel loading in montane chaparral to reduce the likelihood that fires originating in this type will generate crown fires in adjacent forested stands.</li> </ul>	outlined in the ANF LMP.
• Manage chaparral in selected locations to protect the life and property of human inhabitants (e.g., the urban interface), to improve wildlife forage, and to protect watersheds from the adverse impacts of large, destructive, high-intensity fires. In selected watersheds, manage for even-aged patch sizes of less than 5,000 acres.	
<b>FH 4 - Insect and Disease Management:</b> Protect natural resource values that are at risk due to insect or disease loss at levels outside of the desired range of variability or where needed to improve habitat:	
<ul> <li>Thin conifer stands to prevent water stress and damage by bark beetles.</li> </ul>	
Report unusual mortality of vegetation promptly to the Forest Vegetation Manager or Natural Resources/Planning Officer. The Forest Resource Department investigates detection reports and coordinates funding requests from the national forest for pest suppression and prevention projects.	<b>Not Applicable.</b> The Build Alternatives would not interfere with insect and disease management priorities within the ANF.
<ul> <li>Consider desired pest management suppression projects when economically viable, such as suppression of dwarf mistletoe in high value trees at developed recreation sites.</li> </ul>	



Relevant Sections	Consistency Assessment	
Air Quality		
Air 1 - Minimize Smoke and Dust: Control and reduce smoke and fugitive dust to protect human health, improve safety and/or reduce or eliminate environmental impacts.  Incorporate visibility requirements into project plans.  Use emission reduction techniques.	Consistent. As discussed in Section 3.3, Air Quality and Global Climate Change, the Authority would prepare a fugitive dust control plan (AQ IAMF#1) that includes measures to minimize fugitive dust during construction.	
Air 2 - Forest Air Quality Emissions: Maintain and update the inventory for wildland fire emissions and other forest resource management emissions within the State Implementation Plan (SIP). The State Implementation Plan inventories and establishes levels of air pollution that meet the long-term federal air quality goals for bringing the non-attainment areas to attainment of the National Ambient Air Quality Standards.	Not Applicable. The Build Alternatives would not interfere with the USFS's inventory of wildland fire emissions.	
<ul> <li>Describe the magnitude and timing of prescribed and wildland fire emissions in each Air Pollution Control District.</li> </ul>		
Water Quality		

riparian area sustainability:

Assess impacts of proposed groundwater extraction proposals to assure that developments will not adversely affect aquatic, riparian or upland ecosystems.

Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, and Section 3.8, Hydrology and Water Quality, the Authority evaluated potential hydrogeologic effects associated with construction and operation of the Build Alternatives to assess potential impacts on aquatic. riparian, and upland ecosystems.

Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Groundwater losses could affect the hydrology of groundwater-dependent ecosystems, resulting in effects on species. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater losses due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized declines in groundwater levels that could have temporary indirect effects on the hydrology of groundwater-dependent surface water features,



Relevant Sections	Consistency Assessment
	including springs, seeps, and intermittent or perennial streams that provide habitat for wildlife species.
	To address this impact, the Authority would prepare and implement a long-term Adaptive Management and Monitoring Program (AMMP). BIO-MM#93 and HYD-MM#4 set forth this requirement, which would require monitoring of groundwater-dependent surface water resources and associated habitat within the Tunnel Construction RSA, providing supplemental water where needed, and remediating adversely effected aquatic, riparian and upland resources identified during monitoring. If restoration of affected areas is not successful, compensatory mitigation to offset impacts would be provided. With implementation of IAMFs and mitigation measures, the Build Alternatives would not adversely affect aquatic, riparian or upland ecosystems as a result of indirect effects from tunnel construction.
Restore, maintain and improve watershed conditions. Assure approved and funded rehabilitation and emergency watershed treatments are implemented in an effective and timely manner.	Consistent. As discussed in Section 3.8, Hydrology and Water Quality, the HSR Build Alternatives would be designed to maintain existing watershed functions within the ANF. IAMFs pertaining to storm and groundwater management (HYD-IAMF#1) and flood protection (HYD-IAMF#2) would require that surface water crossings maintain pre-project hydraulic capacity through the implementation of on-site stormwater management best management practices (BMP) to provide runoff dispersion, infiltration, detention, and evaporation. Implementation of these IAMFs during project design and construction would reduce operational impacts to hydraulic capacity by minimizing alterations to watercourses, implementing erosion control BMPs, and maintaining existing stormwater patterns.
	The Authority would prepare and implement a construction stormwater pollution prevention plan (HYD-IAMF#3) to avoid or minimize changes to drainage, stormwater, and erosion patterns during construction. Hydromodification management procedures would verify maintenance of pre-construction hydrology by emphasizing on-site retention of stormwater runoff using measures such as flow dispersion, infiltration, and evaporation (supplemented by detention where required). In addition, BMPs would retain stormwater runoff on site per the storm and groundwater management and treatment plan, as outlined in HYD-IAMF#1.



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Maintain or restore soil properties and productivity to ensure ecosystem health (soil microbiota and vegetation growth), soil hydrologic function, and biological buffering capacity	Consistent. Construction of the Build Alternatives would potentially expose erodible soils, cause soil compaction, and contaminate soils from unintentional chemical spills and leaks. These impacts would potentially degrade soil ecosystem health, hydrological function, and biological buffering capacity within the construction area. Implementation of BIO-IAMF#11, which identifies BMPs for soil stabilization, erosion control, and waste management and materials control during construction, as well as implementation of soil stabilization measures at disposal sites (GEO-MM#1), vernal pool avoidance measures (BIO-MM#5), and habitat restoration measures (BIO-MM#50), would ensure maintenance and restoration of soil properties within the construction area. Refer to Sections 3.7, Biological Resources and Wetlands and 3.9, Geology, Soils, Seismicity, and Paleontological Resources for further discussion of soils.
Manage Riparian Conservation Areas (RCA) to maintain or improve conditions for riparian-dependent resources. Riparian Conservation Areas include aquatic and terrestrial ecosystems and lands adjacent to perennial, intermittent, and ephemeral streams, as well as around meadows, lakes, reservoirs, ponds, wetlands, vernal pools, seeps, and springs and other bodies of water. Riparian-dependent resources are those natural resources that owe their existence to the area, such as fish, amphibians, reptiles, fairy shrimp, aquatic invertebrates, plants, birds, mammals, soil and water quality.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the HSR Build Alternatives would impact riparian habitat, watersheds, streams, and other riparian-dependent upland ecosystems. These impacts would be minimized through implementation of compensatory mitigation for both temporary and permanent impacts to riparian habitat (BIO-MM#32 and BIO-MM#46) through habitat restoration and revegetation. BIO-IAMF#5 would also require the preparation and implementation of a Biological Resources Management Plan and include specific measures for the protection of vernal pool habitat and riparian areas and resources during construction and operation of the Build Alternatives.  Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Groundwater losses could affect the hydrology of riparian-dependent ecosystems. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized groundwater losses that could have temporary indirect effects on the hydrology of groundwater-dependent surface water



Relevant Sections	Consistency Assessment
	features, including riparian-dependent resources.
	To address this impact, the Authority would prepare and implement a long-term AMMP. BIO-MM#93 and HYD-MM#4 set forth this requirement, which would require monitoring of groundwater-dependent surface water resources and associated habitat within the Tunnel Construction RSA, providing supplemental water where needed, and remediating adversely effected aquatic, riparian and upland resources identified during monitoring. If restoration of affected areas is not successful, compensatory mitigation to offset impacts would be provided. With implementation of IAMFs and mitigation measures, the Build Alternatives would not adversely affect aquatic, riparian or upland ecosystems as a result of indirect effects from tunnel construction.
	Consistent. As discussed in Section 3.8, Hydrology and Water Resources, the HSR infrastructure could alter stream capacity, connectivity, and function. Incorporation of the storm and groundwater management and treatment plan (HYD-IAMF#1) and the construction period stormwater pollution prevention plan (HYD-IAMF#3) would prevent the Build Alternatives from substantially altering existing drainage patterns.
Achieve and maintain natural stream channel conductivity, connectivity and function.	Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Loss of groundwater could affect the conductivity, connectivity, and function of natural streams. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater losses due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized losses of groundwater that could have temporary indirect effects on the hydrology of groundwater-dependent surface water features, including natural streams.
	To address this impact, the Authority would prepare and implement a long-term AMMP, described in HWR-MM#4. The AMMP includes monitoring protocols to establish baseline conditions of surface water resources and to detect changes in groundwater conditions related to tunnel construction to ensure timely implementation of remedial measures. HWR-MM#4 further



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	requires that the AMMP include provisions for augmenting water supplies for wells and surface water resources and establishes performance standards that the remedial actions must achieve to approximately match baseline conditions. The measures required to augment water supplies and maintain baseline conditions are feasible (Appendix 3.8-D) to implement for areas subject to such impacts and would effectively reduce or offset impacts to affected water resources. With implementation of these mitigation measures, the Build Alternatives would not result in a substantial adverse effect to the conductivity, connectivity, and function of natural streams as a result of indirect effects from tunnel construction.
	Consistent. The Build Alternatives would have the potential to cause ground subsidence, soils erosion, landslides, fault ruptures, and liquefaction that could damage or destroy structures and/or result in injury or death during tunneling and construction activities. Adherence to the Construction Management Plan, which includes how to appropriately address the above geological constraints (GEO-IAMF#1), subsidence monitoring (GEO-IAMF#9), and following established engineering design guidelines and standards to reduce impacts to geological resources (GEO-IAMF#10), would ensure appropriate assessment and management of geological resources and hazards and reduce risks to people and resources during construction.
Assess and manage geologic resources and hazards to integrate earth science principles and relationships into ecosystem management, reduce risks to people and resources, and interpret and protect unique values.	Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. The greatest potential for groundwater to flow into tunnels exists at locations where tunnel construction intersects faults and fractures in the bedrock. The hydrogeologic impact analysis includes mapping of known faults along the alternative tunnel alignments to identify those areas at risk of hydrologic impacts.
	To address hydrologic effects associated with changes to the hydrogeologic conditions, the Authority would prepare and implement a long-term AMMP, described in HWR-MM#4. The AMMP includes monitoring protocols to establish baseline conditions of surface water resources and to detect changes in groundwater conditions related to tunnel construction to ensure timely implementation of remedial measures. HWR-MM#4 further requires that the AMMP include provisions for augmenting water supplies for wells and surface water resources and establishes performance standards that the remedial actions must achieve to approximately match baseline conditions.



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Identify, prioritize based on risk, and mitigate impacts of abandoned and inactive landfills on water, soil and other resources. Stabilize and reclaim where necessary abandoned and inactive landfills to maintain proper watershed function, public safety and resource benefit.	Consistent. As discussed in Section 3.10, Hazardous Materials and Wastes, the HSR Build Alternatives would be located adjacent to existing or historic landfill sites, including landfill sites located within lands managed by the USFS. Gas monitoring measures (GEO-IAMF#3) and methane protection measures and personnel training for work within 1,000 feet of landfills (HMW-IAMF#2) would prevent significant hazards resulting from conditions that involve the release of hazardous materials from landfills associated with HSR construction or operation.
Inventory, analyze and prioritize abandoned mines to identify chemical and physical hazards, historic significance, and biological resources prior to reclamation. Mitigate safety hazards and adverse environmental impacts, conduct reclamation as needed, and assure that water quality standards are met.	Consistent. As discussed in Section 3.7, Biological and Aquatic Resources, and Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources, the HSR Build Alternative RSAs would encompass known, undocumented, and abandoned mining facilities, including facilities located within lands managed by the USFS. Impacts to biological resources would be minimized with designation of a Project Biologist and Biological Monitors (BIO-IAMF#1) and preparation of Worker Environmental Awareness Program (WEAP) training for construction crews (BIO-IAMF#3). Gas monitoring measures (GEO-IAMF#3), environmental cleanup and closure of physical safety hazards associated with historic or abandoned mines and other toxic sites (GEO-IAMF#4), and implementation of a slope failure evaluation and evacuation plan (GEO-MM#2) would minimize safety hazards and adverse environmental impacts associated with abandoned mine facilities.



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Maintain watershed integrity by disposing of displaced soil and rock debris in approved placement sites.	<b>Consistent.</b> Soil and rock debris excavation during construction of the Build Alternatives would be disposed of at approved disposal areas, including the Vulcan Mine Site within the ANF including SGMNM. Refer to Section 2, Alternatives, for further discussion of spoils disposal.
Develop direction and policy (southern California, national forest, or place-wide as appropriate) for protecting, collecting, curating, and distributing paleontological resources.	Not Applicable. The Build Alternatives have the potential to destroy or alter paleontological resources during tunneling and excavation activities, of which there would be no feasible mitigation. However, it would not interfere with the USFS's abilities to develop policy for protecting, collecting, curating, and distributing paleontological resources. Refer to Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources, for an evaluation of impacts to paleontological resources associated with the Build Alternatives.
WAT 2 - Water Management: Manage groundwater and surface water to maintain or improve water	er quantity and quality in ways that minimize adverse effects:
Assess impacts of proposed groundwater and surface water extraction proposals to assure that developments will not adversely affect aquatic, riparian or upland ecosystems and other uses, resources or rights (e.g., tribal water rights).	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, and Section 3.8, Hydrology and Water Quality, the Authority evaluated potential hydrogeologic effects associated with construction and operation of the Build Alternatives to assess potential impacts on aquatic, riparian, and upland ecosystems and other uses, resources or rights.  Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Loss of groundwater could affect aquatic, riparian or upland ecosystems and other uses, resources or rights. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized loss of groundwater that could have temporary indirect effects on the hydrology of groundwater-dependent surface water features, including aquatic, riparian or upland ecosystems.  To address this impact, the Authority would prepare and implement a long-term AMMP. BIO-MM#93 and HYD-MM#4 set forth this requirement, which



Relevant Sections	Consistency Assessment
	resources and associated habitat within the Tunnel Construction RSA, providing supplemental water where needed, and remediating adversely effected aquatic, riparian and upland resources identified during monitoring. If restoration of affected areas is not successful, compensatory mitigation to offset impacts would be provided. With implementation of IAMFs and mitigation measures, the Build Alternatives would not adversely affect aquatic, riparian or upland ecosystems as a result of indirect effects from tunnel construction.
Assess impacts of existing surface water extraction on critical habitats or when authorizations are issued or re-issued.	<b>Not Applicable.</b> Construction and operation of the Build Alternatives would not involve surface water extraction; water utilized in the Build Alternatives would be provided by local water purveyors.
Promote water conservation at all national forest administrative and authorized facilities. Protect and improve water quality by implementing best management practices and other project-specific water quality protection measures for all national forest and authorized activities. When reviewing non-forest water-related projects that may affect national forest resources, include appropriate conservation and water quality mitigation measures in the review response.	Consistent. As discussed in Section 3.8, Hydrology and Water Quality, construction activities within the ANF would introduce new sources of pollutants that could contaminate or pollute surface waters within or adjacent to the construction area. The Authority would prepare and implement a construction stormwater pollution prevention plan (IAMF#3) that includes BMPs to minimize surface water quality impacts caused by short-term sedimentation during construction. Potential BMPs include erosion control requirements, stormwater management, and channel dewatering for affected stream crossings.
	The HSR Build Alternative alignments would not introduce substantial new permanent surface facilities within the ANF. Direct water quality impacts related to erosion and sedimentation would be unlikely as a result of the implementation of BMPs. However, stormwater generated by the new impervious surfaces constructed within the ANF, such as access roads, utility corridors, and adit structures, could result in erosion and sedimentation. HYD-IAMF#1 would require on-site storm and groundwater management facilities to capture runoff from impervious surfaces that could generate polluted runoff. Potentially contaminated runoff from project-related surfaces would be captured and treated within these stormwater management facilities prior to discharge. Because pollutants would be generated in small quantities, and as BMPs would be implemented to minimize the discharge of these pollutants to receiving waters, the potential for introducing new sources of polluted runoff on USFS lands would be minor throughout the lifetime of the project.
	Dewatering activities within the ANF where trenching, grading, placement of utility lines, and construction of aboveground and at-grade alignment encounters high groundwater could introduce contaminants to groundwater. The magnitude of impacts associated with a release or spill



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	would vary depending on the distance of the spill from surface water features, the total volume of materials, soil permeability, physiologic features of the location, and climatic conditions at the time of the release. As discussed in Section 3.10, Hazardous Materials and Wastes, HMW-IAMF#9 would minimize the hazardous materials selected for use throughout HSR operation and maintenance, and HMW-IAMF#10 would implement hazardous materials plans to provide for the correct handling of hazardous materials throughout operations and maintenance activities. The construction stormwater pollution prevention plan (HYD-IAMF#3) would minimize water quality impacts related to channel dewatering, and HWR-MM#1 would require the Authority to treat potential groundwater contamination based on Regional Water Quality Control Board permit requirements. Given the above, the Build Alternatives would not substantially degrade groundwater quality within USFS lands.



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Conserve and protect high-quality water sources in quantities adequate to meet national forest needs.	Consistent. Erosion control BMPs and compliance with water quality parameters and monitoring through implementation of the stormwater pollution prevention program (HYD-IAMF#3) would minimize impacts to high-quality water sources within the Build Alternative RSAs.  Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Loss of groundwater could affect surface and subsurface water resources and other hydrologic resources on which resources within the national forest rely. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized losses of groundwater that could also affect surface water resources.  To address this impact, the Authority would prepare and implement a long-term AMMP, described in HWR-MM#4. The AMMP includes monitoring protocols to establish baseline conditions of surface water resources and to detect changes in groundwater conditions related to tunnel construction to ensure timely implementation of remedial measures. HWR-MM#4 further requires that the AMMP include provisions for augmenting water supplies for wells and surface water resources and establishes performance standards that the remedial actions must achieve to approximately match baseline conditions. The measures required to augment water supplies and maintain baseline conditions are feasible (Appendix 3.8-D) to implement
Take corrective actions to eliminate the conditions leading to California State listing of 303(d) impaired waters on National Forest System land. For those waters that are both on and off	<b>Not Applicable.</b> As discussed in Section 3.8, Hydrology and Water Quality, the HSR Build Alternatives would not contribute to pollutants



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National Forest System land, ensure that Forest Service management does not contribute to listed water quality degradation.	reported in 303(d) waterbodies in the HSR project area.
Actively pursue water rights and water allocation processes to secure instream flows and groundwater resources for current and future needs sufficient to sustain native ripariandependent resources and other national forest resources and uses.	<b>Not Applicable.</b> The Build Alternatives would not require or interfere with the USFS's ability to pursue water rights or water allocations.
Identify the need for and encourage the establishment of water releases, for current and future use, to maintain instream flow needs including channel maintenance, and to protect and eliminate impacts on riparian-dependent resources.	<b>Not Applicable.</b> The Build Alternatives would not require or interfere with the USFS's ability to pursue water releases within the ANF.
Participate in all Federal Energy Regulatory Commission licensing and re-licensing efforts on National Forest System land to ensure sufficient consideration and protection is provided for riparian-dependent resources. Incorporate instream flow, riparian, and other natural resource management requirements into 4€ license conditions.	Not Applicable. The Build Alternatives would not involve Federal Energy Regulatory Commission licensing.
Monitor water development projects to ensure that instream flows are meeting riparian- dependent resource needs.	Not applicable. The Build Alternatives would not involve the implementation of a water development project.
To maintain or improve habitat containing threatened, endangered, proposed, candidate and sensitive species coordinate activities with CDFW, National Oceanic and Atmospheric Administration (NOAA) Fisheries, USFWS, State Water Resource Control Board (SWRCB) and other appropriate agencies involved in recommending instream flow and surface water requirements for waterways.	Consistent. Prior to any ground-disturbing activity to aquatic resources, the Authority would obtain permits for impacts to aquatic resources, which would require mitigation measures consistent with federal and state regulatory requirements.  Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Loss of groundwater could affect the hydrology of groundwater-dependent ecosystems, resulting in effects on habitat for threatened, endangered, proposed, candidate, and sensitive species. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized loss of groundwater that could have temporary indirect effects on the hydrology of groundwater-dependent surface water features, including habitat for threatened, endangered, proposed, candidate, and sensitive species.  To address this impact, the Authority would prepare and implement a long-



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	term AMMP. BIO-MM#93 and HYD-MM#4 set forth this requirement, which would require monitoring of groundwater-dependent surface water resources and associated habitat within the Tunnel Construction RSA, providing supplemental water where needed, and remediating adversely effected aquatic, riparian and upland resources identified during monitoring. If restoration of affected areas is not successful, compensatory mitigation to offset impacts would be provided. With implementation of IAMFs and mitigation measures, the Build Alternatives would not adversely affect aquatic, riparian or upland ecosystems as a result of indirect effects from tunnel construction.
Cooperate with federal, tribal, state and local governments and private entities to secure the instream flow needed to maintain, recover, and restore riparian-dependent resources, channel conditions and aquatic habitat.	Consistent. Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effect on groundwater aquifers. Loss of groundwater could affect the hydrology of riparian-dependent ecosystems, channel conditions and aquatic habitat. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during and after construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized loss of groundwater that could have temporary indirect effects on the hydrology of groundwater-dependent surface water features, including riparian-dependent resources, channel conditions and aquatic habitat.  To address this impact, the Authority would prepare and implement a long-term AMMP. BIO-MM#93 and HYD-MM#4 set forth this requirement, which would require monitoring of groundwater-dependent surface water resources and associated habitat within the Tunnel Construction RSA, providing supplemental water where needed, and remediating adversely effected aquatic, riparian and upland resources identified during monitoring. If restoration of affected areas is not successful, compensatory mitigation to offset impacts would be provided. With implementation of IAMFs and mitigation measures, the Build Alternatives would not adversely affect aquatic, riparian or upland ecosystems as a result of indirect effects from tunnel construction.
WAT 3 - Hazardous Materials: Manage known hazardous materials risks:	Consistent. As discussed in Section 3.10, Hazardous Materials and



# **Relevant Sections** Maintain a written Hazardous Materials Response Plan that addresses risk and standard

# cleanup procedures.

#### Coordinate with federal, tribal, state, city and county agencies and local landowners to develop emergency response guidelines for hazardous spills on National Forest System land or on adjacent land with potential to affect threatened, endangered, proposed, candidate and sensitive fish and amphibian habitat. In the event of hazardous material spills in known habitat on National Forest System land, the Forest Service will contact the USFWS within 24 hours. Quickly contact resource personnel and use them as consultants to minimize impacts to habitat and to initiate emergency consultation with the USFWS if necessary. Provide habitat maps to response personnel for hazardous spills.

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Wastes, the Authority would prepare plans outlining procedures for hazardous materials storage, use, and disposal procedures associated with both construction and operation. Such plans include a spill protection. control, and countermeasure plan (HMW-IAMF#6) and a hazardous materials monitoring plan (HMW-IAMF#10), which would be prepared prior to construction.

#### **Habitat Linkages**

Link 1 - Habitat Linkage Planning: Identify linkages to surrounding habitat reserves and other natural areas for maintaining biodiversity. Collaborate with local government, developers, and other entities to complement adjacent federal and non-federal land use zones and associated design criteria:

- Participate in regional planning efforts to identify linkages to surrounding habitat reserves and other natural areas for maintaining biodiversity.
- Work with land conservancies, local government and others to secure long-term habitat linkages.
- Manage national forest use and activities to be compatible with maintaining habitat linkages.
- Actively participate with local government, developers, and other entities to protect national forest values at intermix and interface zones.

Consistent. Because the Build Alternatives would be located underground as they traverse the ANF, the Build Alternatives would allow wildlife movement within lands managed by the USFS. At-grade facilities proposed within the ANF, including utility corridors, electrical transmission lines, and adits, would introduce minor constraints, but would not create substantial barriers to wildlife movement. Refer to Section 3.7. Biological Resources and Wetlands, for more information on regional wildlife connectivity and movement.

#### Wilderness

SD 1 - Wilderness: Protect and manage wilderness to improve the capability to sustain a desired range of benefits and values and so that changes in ecosystems are primarily a consequence of natural forces.

- Protect and manage areas recommended for wilderness designation to maintain their wilderness values.
- Within the life of the plan manage all wilderness areas to standard, including areas designated as new wildernesses when they are established.
- On designation of new wilderness areas and wilderness additions, implement legislative direction as specified by law.
- Ensure that current and future issues and management needs, including adequate biophysical and social monitoring, are addressed in all wilderness planning. Identify all use that results in adverse impacts and develop measures to alleviate those impacts to an appropriate level using state-of-the-art processes such as limits of acceptable change.

**Consistent.** There is one wilderness area located within the Palmdale to Burbank study area: The Magic Mountain Wilderness Area is located within the ANF including portions of the SGMNM, east of the City of Santa Clarita. The Build Alternatives do not include any surface activities or subsurface facilities within the Magic Mountain Wilderness Area.



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Prescribed fire may be used in wilderness to retain wilderness values or where community protection needs exist due to development on private lands near the wilderness. Community protection projects have been identified within the Cucamonga and Sheep Mountain Wilderness Areas. Use prescribed fire in wilderness only to meet wilderness fire management objectives.	
<ul> <li>Emphasize Minimum Impact Suppression Tactics in all wilderness wildland fire responses.</li> <li>Suppression operations in the three wilderness areas and any subsequent wilderness additions may be conducted under control, contain, or confine suppression strategies.</li> </ul>	
<ul> <li>Wilderness resource advisors will be assigned as necessary to all wilderness fires.</li> </ul>	
When new wilderness is recommended, include legislative wording that identifies "where a wilderness area is adjacent to or is in close proximity to inhabited areas, the Secretary may take appropriate measures to control or prevent wildland fire through federal, state, and/or local agencies and jurisdictions."	
<b>SD 2 - Wild and Scenic Rivers:</b> Manage designated wild and scenic river segments to perpetuate their free-flowing condition and designated classifications, and to protect and enhance their outstandingly remarkable values and water quality.	
<ul> <li>For those designated wild and scenic rivers, a Comprehensive River Management Plan and boundary declaration will be prepared and implemented as specified in the designation language.</li> </ul>	Not Applicable. The Build Alternatives would not encounter Wild and
• Manage eligible wild and scenic river segments to perpetuate their free-flowing condition and proposed classifications, and to protect and enhance their outstandingly remarkable values and water quality through the suitability study period, and until designated or released from consideration:	Scenic Rivers within lands managed by the USFS.
<ul> <li>For those eligible wild and scenic river segments, interim protection measures will be applied to the bed, bank, and one-quarter mile on either side of the ordinary high-water mark.</li> </ul>	
<ul> <li>SD 3 - Research Natural Areas: Protect and manage research natural areas (RNAs) to maintain unmodified conditions and natural processes. Identify a sufficient range of opportunities to meet research needs. Compatible uses and management activities are allowed:</li> <li>Submit Establishment Reports for designated research natural areas to the Regional Forester.</li> </ul>	Not Applicable. The Build Alternatives would not encounter research natural areas.
	Inconsistent. The E1, E1A, E2, and E2A Build Alternatives would traverse
<ul> <li>SD 4 - Special Interest Areas: Protect and manage special interest areas (SIAs) for the values and features for which they are established. Use and management activities, including access, that complement or are subordinate to the values and features are allowed:</li> <li>Within the life of the forest plan update or prepare management plans, implementation schedules and monitoring protocols for existing and newly designated SIAs</li> </ul>	the Aliso-Arrastre Canyon Special Interest Area (USFS 2005). HSR facilities within the Aliso-Arrastre Special Interest Area include the cut and cover tunnel and associated right-of-way, an electrical utility line, and a temporary construction staging area along Arrastre Canyon Road. HSR surface features would be inconsistent with the Aliso-Arrastre Special Interest Area's values and features, such as the documentation and preservation of its significant cultural and archaeological resources.



Relevant Sections	Consistency Assessment
Heritage Resources	
<ul> <li>Her 1 - Heritage Resource Protection: Protect heritage resources for cultural and scientific value and public benefit:</li> <li>Document known significant cultural properties to identify any activity that adversely affects, or has the potential to adversely affect, or does not complement the site. Develop measures to mitigate the adverse effects or impacts.</li> <li>Use partnerships to implement site management plans for heritage resource sites, focusing on those sites with recognized significance or at risk from public or land use effects.</li> <li>Evaluate historic sites for appropriate management. Develop site management plans for noteworthy heritage resources wherever they occur.</li> </ul>	Consistent. The Authority documented and evaluated cultural resources within the Build Alternative RSAs. On encountering or discovery of new cultural resource sites, including heritage resource sites, the Authority would minimize impacts by halting work and complying with state and federal laws as applicable, and implement the procedures stipulated in the Programmatic Agreement Regarding Compliance with Section 106 and Archaeological Treatment Plan (CUL-MM#1 and CUL-MM#2) as well as implement best management practices for standard practice maintenance of the cultural resource site (CUL-MM#4)Therefore, the Build Alternatives would adhere to existing and planned cultural resource site management plans. Refer to Section 3.17, Cultural Resources, for an evaluation of cultural resources on land managed by the USFS.
<ul> <li>Her 2 - Public Involvement Program: Provide public involvement programs with opportunities for the public to partner in the stewardship of heritage resource sites:</li> <li>Develop public involvement programs to foster partnerships in heritage resource stewardship to aid in identifying and evaluating heritage sites.</li> <li>Work with local communities to understand, document, preserve, and interpret the national forest history for the public. Develop opportunities for partnerships with the public to maintain and reuse historic heritage resources.</li> </ul>	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to develop public involvement programs or foster partnerships in heritage resource stewardship.
<ul> <li>Her 3 - Forest-wide Heritage Inventory: Increase knowledge of the occurrence, distribution, and diversity of site types for heritage resources on the national forest:</li> <li>Increase the heritage resource database through the survey of nonproject associated acreage. Prioritize inventories for those places where the percentage of uninventoried acres within the high heritage resource sensitivity zone exceeds 50 percent of the total high heritage resource sensitivity zone acres for the place.</li> </ul>	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to inventory heritage resources within the ANF.
<ul> <li>Her 4 - Heritage Research: Document and strengthen the linkages between heritage research and ecosystem management and research, and integrate knowledge and appreciation of past cultures into today's diversity:</li> <li>Identify research needs and opportunities for research programs for qualified persons or groups by developing cooperative agreements.</li> </ul>	<b>Not Applicable.</b> The Build Alternatives would not interfere with the USFS's abilities to incorporate heritage research with ecosystem management.



Relevant Sections	Consistency Assessment
Recreation	
<ul> <li>REC 1 - Recreation Opportunity: Manage national forest land to achieve recreation opportunity spectrum (ROS) classes.</li> <li>Wilderness ROS will be mapped and implemented when existing wilderness schedules are updated and/or when new wilderness schedules are written.</li> </ul>	Consistent for the Refined SR14 and SR14A Build Alternatives. The Refined SR14 and SR14A Build Alternatives would introduce permanent surface improvements in Semi-Primitive, Non-Motorized Land at the Vulcan Mine Site, which itself is not a recreational resource. These HSR facilities outside of the Vulcan Mine Site would be inconsistent with the applicable ROS classes, which restricts local road use to minimize impacts on recreation (USFS 2018).  Inconsistent for the E1, E1A, E2, and E2A Build Alternatives. The E1, E1A, E2 and E2A Build Alternatives would introduce permanent surface improvements in Semi-Primitive, Non-Motorized land near Aliso Canyon. These HSR facilities would be inconsistent with the applicable ROS classes, which restricts local road use to minimize impacts on recreation.
REC 2 - Sustainable Use and Environmental Design: Analyze, stabilize and restore areas where visitor use is negatively affecting recreation experiences, public safety and environmental resources. Manage visitor use within the limits of identified capacities: Implement recreation capacity control measures in specific high-use areas as use levels become a concern. Conduct threatened, endangered, proposed, candidate and sensitive species occupancy surveys within potential threatened, endangered, proposed, candidate and sensitive species recreation conflict areas. Implement Adaptive Mitigation for Recreation Uses in existing and new recreation sites and uses whenever a conflict between uses or sensitive resources is detected.	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to manage sites of high recreational use within the ANF.
<ul> <li>REC 3 - Recreation Participation: Offer a wide range of high-quality, environmentally sustainable developed and dispersed recreation opportunities to a rapidly growing and culturally diverse visitor population, with minimal visitor conflicts and effects to other resources:</li> <li>Develop new, environmentally sustainable recreation opportunities, areas and infrastructure to relieve concentrated demand within existing high-use areas and to accommodate future growth and new uses elsewhere.</li> <li>Improve, remove or replace aging developed recreation infrastructure to better meet current needs and future demand. Replacing opportunities lost to closures will be a high priority.</li> <li>Inventory and analyze existing and potential dispersed use, including, but not limited to, hiking, motorized recreation, day-use, recreational target shooting, waterplay, snowplay and camping opportunities. Identify areas where that use is consistent with resource protection and public safety, and mitigate or eliminate problems over time.</li> <li>Implement adaptive management processes at recreation facilities to proactively respond to persons with disabilities, contemporary urban visitors, aging populations, diverse ethnic groups, and day-use emphasis.</li> </ul>	Not Applicable. The Build Alternatives would not include new recreation opportunities nor interfere with the USFS's abilities to provide conservation education opportunities. Refer to Section 3.15, Parks, Recreation, and Open Space, for more information on recreational opportunities within the ANF.



Relevant Sections	Consistency Assessment
<ul> <li>REC 4 - Conservation Education: Visitors have a greater understanding about the significance and importance of forest ecosystems, heritage resources, and the interrelationship between people and the natural environment:</li> <li>The Forest Service plays a leadership role in environmental stewardship and conservation education partnerships with non-profits, volunteer groups, communities, governments, organization camps and private entities, emphasizing and enhancing the capability of field program and project delivery, especially to underserved populations. Coordination between national forests is promoted for maximum results and cost efficiencies of programs and projects.</li> </ul>	<b>Not Applicable.</b> The Build Alternatives would not include conservation education nor interfere with the USFS's abilities to provide conservation education opportunities.
<ul> <li>REC 5 - Recreation Special-Use Authorizations: Manage recreation residences as a valid use of National Forest System land.</li> <li>Complete Recreation Residence Consistency Review and Continuance Determinations including Recreation Residence Compliance Inspections.</li> <li>Manage all recreation special uses in compliance with law, regulation and policy.</li> <li>Administer all recreation special-use authorizations to standard.</li> <li>Establish authorization holder responsibility for public education about threatened, endangered, proposed, candidate and sensitive species approved by the Forest Service for recreation special-use events within all threatened, endangered, proposed, candidate and sensitive species habitats.</li> </ul>	Not Applicable. The Build Alternatives would not include recreational uses nor interfere with the USFS's abilities to manage recreational special uses.
Landscape Management	
<ul> <li>LM 1 - Landscape Aesthetics: Manage landscapes and built elements to achieve scenic integrity objectives:</li> <li>Use best environmental design practices (BEIG) to harmonize changes in the landscape and advance environmentally sustainable design solutions.</li> <li>Mitigate ground disturbance to maintain scenic integrity objectives.</li> </ul>	Consistent. As discussed in Section 3.16, Aesthetics and Visual Quality, the contractor would minimize pre-construction clearing, preserve existing vegetation to the extent possible and replant unused portions of land acquired for the HSR (AVR-MM#1, AVR-MM#5). The Build Alternatives also include design criteria for the incorporation of local jurisdiction aesthetic preferences into the final design and construction of viaducts (AVR-MM#3). Although the E1, E1A, E2 and E2A Build Alternatives would introduce highly visible elevated trackway along Aliso Canyon Road looking north toward Blum Ranch (KVP 1.13), viewers would be limited to motorists along Aliso Canyon Road who would not be sensitive to visual changes and whose views would be brief in duration.



Relevant Sections	Consistency Assessment
<ul> <li>LM 2 - Landscape Restoration: Restore landscapes to reduce visual effects of nonconforming features:</li> <li>Prioritize landscape restoration activities in key places. Integrate restoration activities with other resource restoration.</li> </ul>	Consistent. As part of AVR-MM#5 and the requirements established by the Special-Use Authorization for new uses on USFS lands, the Authority would conduct rehabilitation or restoration activities of land used for the HSR facilities. Additionally, at the Vulcan Mine site, construction of the portal and associated facilities would result in spoils deposition in the former mine, which would restore the area to a condition better reflecting the surrounding topography.
<ul> <li>LM 3 - Landscape Character: Maintain the character of key places to preserve their intact nature and valued attributes:</li> <li>Maintain the integrity of the expansive, unencumbered landscapes and traditional cultural features that provide the distinctive character of the place.</li> <li>Promote the planning and improvement of infrastructure along federal and state scenic travel routes.</li> <li>Promote the consideration of key landscape character in other landscape analyses such as Fireshed.</li> </ul>	Consistent. As discussed in Section 3.16, Aesthetics and Visual Quality, the Build Alternatives would be generally be underground within the ANF and SGMNM and would therefore have minimal visual effects on USFS land. Aboveground infrastructure would typically be located on private inholdings within the ANF and would therefore have limited visibility from public vantage points. Publicly accessible viewpoints from within the ANF toward areas outside of the ANF boundaries where the Build Alternatives would be visible are limited. The main location where this would occur along Aliso Canyon Road looking north toward Blum Ranch (KVP 1.13). Although the E1, E1A, E2, and E2A Build Alternatives would introduce highly visible elevated trackway in this area, viewers would be limited to motorists along Aliso Canyon Road who would not be particularly sensitive to visual changes and whose views would be brief in duration.  There are no federal or state-designated scenic highways identified in the Palmdale to Burbank Project Section.



Relevant Sections	Consistency Assessment
Law Enforcement	
Law 1 - Enforcement and Investigations: Provide law enforcement (LE) services for safety and resource protection. Opportunities to supplement LE resources include but are not limited to:	
Supplement staff with law enforcement officers (LEOs) from other agencies, and by recruiting and deploying additional reserve law enforcement officers. Pursue alternate funding sources to supplement LE programs, such as the State of California Off-Highway Vehicle grant program.	
Use cooperative agreements with local law enforcement agencies. Supplement field personnel and provide additional law enforcement support primarily on high-use weekends or holidays when visitor use is highest, or as a response unit in locations where LEO presence is limited.	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to provide law enforcement services.
Improve LE services by recruiting and employing Spanish speaking officers whenever possible. Provide training for officers that do not currently speak Spanish. Adapt to changes in interpreter/interpretation needs with the inclusion of people that are conversant in any of the other languages that are, or will become, predominant in the future by recruiting these people into the ride-along-program with the LEO cadre.	
<ul> <li>As soon as practical, develop, update, or revise Forest Orders to define the long-term protection that apply to national forest needs.</li> </ul>	
Facilities	
Fac 1 - Facility Maintenance Backlog: The backlog of facilities that do not meet the desired condition or complement the recreation setting is reduced by replacing outdated substandard facilities with safe, efficient, durable, environmentally sensitive infrastructure. Accommodate the facilities needs of new employees and equipment:	
<ul> <li>Identify and evaluate applicable property or buildings of potential historic value in support of the facility master plan. Remove facilities no longer needed or abandoned, and restore sites to natural conditions.</li> </ul>	Not Applicable. The Build Alternatives would not interfere with the USFS's
<ul> <li>Remove excess facilities and restore sites to natural conditions.</li> </ul>	abilities to address facility maintenance backlog.
<ul> <li>Reduce the backlog with priority for health and safety and accessibility compliance.</li> </ul>	
<ul> <li>Increase the operating efficiency of existing buildings.</li> </ul>	
<ul> <li>Upgrade site utilities for efficient operation. Remodel or construct new buildings to conform to approved facilities master plans.</li> </ul>	
<ul> <li>Accommodate the 2003 supplementary fire employees and equipment.</li> </ul>	



Relevant Sections	Consistency Assessment
Transportation	
<ul> <li>Trans 1 - Transportation System: Plan, design, construct, and maintain National Forest System roads and trails to meet plan objectives, to promote sustainable resource conditions, and to safely accommodate anticipated levels and types of use:</li> <li>Implement landscape scale transportation system analysis on a priority basis. Coordinate with state, county, local and regional government entities, municipalities, tribal governments, other agencies, and the public.</li> <li>Add unclassified roads to the National Forest System of roads when site-specific road analysis determines there is a public need for the road.</li> <li>Enhance user safety and offer adequate parking at popular destinations on high traffic passenger car roads, while also minimizing adverse resource effects.</li> <li>Using priorities identified in the Roads Analysis Process, reduce the road maintenance backlog to provide safe, efficient routes for recreationists and through-traveling public, and to safely accommodate fire protection equipment and other high clearance vehicles.</li> <li>Implement Corridor Management Plan for the Angeles Crest Scenic Byway.</li> </ul>	Consistent. Construction of the Build Alternatives would rely on existing roads within the ANF to access adit facilities. As discussed in Section 3.2, Transportation, construction could require temporary lane or road closures, underground utility work, or construction-related trips that could interfere with vehicles, pedestrians, bicyclists, transit routes, and local access. Construction could also lead to temporary disruption of transportation system operations and possible damage to elements of the roadway system such as pavement and bridges. Any such structural damage to public roadways caused by HSR construction or construction access would be repaired (TR-IAMF#1). The Build Alternatives would not otherwise interfere with the USFS's abilities to plan, design, construct, and maintain National Forest System roads and trails.
<ul> <li>Trans 2 - Unnecessary Roads: Reduce the number of unnecessary or redundant unclassified roads and restore landscapes:</li> <li>Decommission roads and trails that have been determined to be unnecessary for conversion to either the road or trail system through site-specific road analysis.</li> <li>Establish levels of restoration through project planning.</li> </ul>	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to reduce unnecessary or redundant roads.
<ul> <li>Trans 3 - Improve Trails: Develop an interconnected, shared-use trail network and support facilities that complement local, regional and national trails and open space, and that also enhance day-use opportunities and access for the general public:</li> <li>Construct and maintain the trail network to levels commensurate with area objectives, sustainable resource conditions, and the type and level of use. Convert roads planned for decommissioning into trails if ecologically sustainable.</li> <li>Manage the Pacific Crest National Scenic Trail to protect the trail experience, and provide for the conservation and enjoyment of its nationally important scenic, historic, natural, and cultural qualities.</li> <li>Maintain and/or develop access points and connecting trails linked to surrounding communities and create opportunities for non-motorized trips of short duration.</li> </ul>	Not Applicable. The Build Alternatives do not propose new trails within the ANF and would not interfere with the USFS's abilities to develop or improve trail networks.



Relevant Sections	Consistency Assessment
<b>Trans 4 - Off-Highway Vehicle Opportunities:</b> Improve off-highway vehicle opportunities and facilities for highway licensed and non-highway licensed vehicles:	
<ul> <li>Improve 4-Wheel Drive opportunities in the easy, more, and most difficult route categories.</li> </ul>	
<ul> <li>In conjunction with the designation of low maintenance standard roads (and where applicable Off-Highway Vehicle areas) develop motorized trails that address the needs of off-highway vehicle enthusiasts.</li> </ul>	<b>Not Applicable.</b> The Build Alternatives do not propose new off-highway vehicle opportunities and would not interfere with the USFS's abilities to develop or improve off-highway vehicle facilities.
<ul> <li>Submit candidate roads and trails to the State of California, Off-Highway Motor Vehicle Division, for designation as the California Back Country Discovery Trail as opportunities to afford this experience are identified.</li> </ul>	
Special Forest Products	
SFP 1 - Offer Special Forest Products: Provide miscellaneous forest products at appropriate levels to sustain resource values. In a manner consistent with adjacent Ranger Districts, manage special forest products to reduce or eliminate impacts to other resources:	
<ul> <li>Record forest product permits to analyze magnitude of the removals.</li> </ul>	Not Applicable. The Build Alternatives do not include removal of forest
<ul> <li>Use public fuelwood sales to remove large pockets of drought induced tree mortality in locations of urban interface where high fire danger is present.</li> </ul>	products for commercial purposes and would not interfere with the USFS's abilities to manage such products.
<ul> <li>Limit collection of woody species under miscellaneous forest product permits to fuel reduction treatment areas or other project areas with completed NEPA project planning.</li> </ul>	
Land Use	
<ul> <li>Lands 1 - Land Ownership Adjustment: Consolidate the National Forest System land base to support resource management objectives, improve management effectiveness, enhance public benefits, and/or improve habitat condition and linkage:</li> <li>Acquire lands or interest in lands through purchase, donation, exchange, rights-of-way acquisition, transfer, interchange, and boundary adjustment in order to address the issues associated with complex ownership patterns such as urban interface fire protection and occupancy trespass.</li> <li>Acquire lands or rights-of-way for road and trail access to support appropriate national forest activities and public needs.</li> </ul>	Consistent. The Build Alternatives would require land acquisition and right-of-way easements adjacent to lands managed by the USFS. In addition, the Authority would acquire private inholdings within the ANF to construct and maintain adit facilities. Acquisition and use of property within and adjacent to the ANF including SGMNM would not prohibit the USFS from future acquisitions that would support appropriate national forest activities, and public needs, and other goals.
<ul> <li>Work with land conservancies, local government, and others in order to secure long-term habitat linkages.</li> </ul>	



Relevant Sections	Consistency Assessment
<ul> <li>Lands 2 - Non-Recreation Special-Use Authorizations: Optimize utilization of encumbered National Forest System land and efficiently administer special-use authorizations (SUAs):</li> <li>Special uses comply with law, regulation, and policy. On termination, restore special-use authorization areas to a specified condition. Administer existing SUAs in threatened, endangered, proposed, candidate and sensitive species habitats or heritage resource site locations to ensure they avoid or minimize impacts to threatened, endangered, proposed, candidate and sensitive species and their habitats and heritage resource sites.</li> <li>Work with special-use authorization holders to better administer National Forest System land and reduce administrative cost.</li> <li>Require SUAs to maximize opportunities to co-locate facilities and minimize encumbrance of National Forest System land.</li> <li>Phase out water diversion authorizations that adversely affect threatened, endangered, proposed, candidate and sensitive species.</li> <li>In threatened, endangered, proposed, candidate and sensitive species habitat that has been degraded by water withdrawals work to amend existing authorizations as necessary to provide suitable water flows for threatened, endangered, proposed, candidate and sensitive species.</li> <li>Where overhead transmission lines occur in California Condor habitat work with utility companies or authorization holders to install high-visibility or avoidance devices and raptor guards on poles and other structures potentially used as perching sites by California Condors.</li> <li>For special-use authorization holders operating within threatened, endangered, proposed, candidate and sensitive species key and occupied habitats, or areas of heritage resource sites develop and provide information and education (e.g., workshops, annual meetings) on ways to avoid and minimize effects of their activities on occupied threatened, endangered, proposed, candidate and sensitive species habi</li></ul>	Consistent. The Build Alternatives would be implemented pursuant to the special-use authorization issued by USFS. HSR would demonstrate compliance with all laws, regulations, and policies governing the issuance of an SUA.
proposed, candidate and sensitive species key and occupied habitats within special-use authorization areas.	
<ul> <li>Lands 3 - Boundary Management: Reduce the backlog of landline posting and incidents of trespass:</li> <li>Survey and post key boundaries to eliminate occupancy trespass and prevent unauthorized occupancy.</li> </ul>	Consistent. The Build Alternatives would not encourage trespass or unauthorized occupancy. The majority of the Build Alternatives alignment would occur underground in the ANF. Surface impacts in the ANF would occur on inholdings and along existing roadways and utility corridors, which would not require fencing. However, in locations where fencing is required, fences and locks would be installed to prevent unauthorized access. Signage will be incorporated to indicate USFS land boundaries, pursuant to the special-use authorization issued by USFS.



Relevant Sections	Consistency Assessment
Lands 4 - Mineral Withdrawals: Monitor and manage withdrawal status to document the condition of lands that could affect other actions (e.g., watershed protection, mining).	<b>Not Applicable.</b> The Build Alternatives do not propose mineral withdrawal activities and would not interfere with the USFS's review of mineral withdrawal operations.
Minerals and Energy	
<b>ME 1 - Minerals Management:</b> Manage minerals and energy resources commensurate with the ordiversity of ecosystems.	onservation of forest resource values and the long-term health and biological
Use terms and conditions of the operating plan to offset the effects of mining consistent with the conservation of habitat for threatened, endangered, or sensitive species, and preserving significant heritage resources.	Not Applicable. The Build Alternatives do not propose new mining operations and would not interfere with the USFS's abilities to manage special-status species habitat affected by with active mining operations.
Eliminate unapproved and noncompliant minerals operations.	<b>Not Applicable.</b> The Build Alternatives do not propose unapproved or noncompliant mining operations.
Facilitate environmentally and culturally sensitive exploration, development, and production of mineral and energy resources on National Forest System land open to these activities, or on withdrawn lands consistent with valid existing rights, and integrate these activities with the planning and management of other resources.	Consistent. As discussed in Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources, the presence of HSR facilities could fragment known mineral resource recovery areas within the ANF, limiting the continuity of existing and future recovery operations in areas where HSR facilities permanently convert land to transportation uses. However, based on the depths of the existing mining operations within the ANF, most of these would remain unaffected due to the depth of the tunnels of the Build Alternatives.
Work with California Department of Fish and Game to prohibit suction dredging to protect threatened, endangered, proposed, candidate, and sensitive species. Participate with the state to identify for the public those sections of streams that are open or closed to dredging.	<b>Not Applicable.</b> The Build Alternatives do not propose dredging within the ANF and would not interfere with the USFS's abilities to manage dredging activities.
Coordinate with California Department of Fish and Game on applying and enforcing state suction dredge regulations on the San Gabriel River. Participate with the state to identify for the public those sections of streams that are open or closed to dredging.	<b>Not Applicable.</b> The Build Alternatives do not propose dredging within the ANF and would not interfere with the USFS's abilities to manage dredging activities.
For approved mining operations within occupied threatened, endangered, proposed candidate and sensitive species habitat, riparian habitat, or other areas with species of concern, monitor mining operations as needed to ensure compliance with plans of operation.	<b>Not Applicable.</b> The Build Alternatives do not propose mining operations and would not interfere with the USFS's abilities to manage special-status species habitat affected by active mining operations.
ME 2 - Biomass Utilization: Seek opportunities to use debris from forest thinning and mortality removal for producing energy.	Not Applicable. The Build Alternatives would not interfere with opportunities to use debris from forest thinning and mortality removal for producing energy.



Relevant Sections	Consistency Assessment
Livestock Grazing	
<b>LG 1 - Livestock Grazing:</b> Livestock grazing areas are maintained and remain sustainable and suitable over the long-term.	
Administer each livestock grazing area to standard within a three year period. Administering a livestock grazing area to standard includes: ensuring compliance with terms and conditions of the permit, allotment management plans, annual operating instructions, biological opinions, and forest plan standards. Permittees monitor for compliance with the permit standards and guides. The permittee submits monitoring and allotment management reports to the national forest officer in charge when requested (FSH 2209.13, 15.14b).	
Review and consider the Region 5 Permit Suspension and Cancellation Guidelines for non-compliance with permit terms and conditions (FSH 2209.13, 16.2, 16.21d). Plan and implement range structural improvements, such as but not limited to, water developments, and barbed wire fences are maintained in a serviceable condition. Structural improvements will incorporate wildlife protection measures when allotment management plans are revised or new improvements are planned.	Not Applicable. The Build Alternatives would not encounter land designated a grazing land, farmland, or timberland production zones within the USFS.
<ul> <li>Use suitable vacant allotments, other livestock grazing areas, and transitory range for available forage or use these areas to move active livestock grazing areas toward meeting resource and rangeland management desired conditions.</li> </ul>	
Review and apply the appropriate rangeland management practices necessary to meet or move toward desired conditions. Rangeland management practices include, but are not limited to: regulation of livestock numbers and distribution; season and degree of use; salt placement locations; and placement of structural improvements. Fencing should be considered as a last resort after other management practices have been determined to be ineffective. Water developments should be considered outside of riparian areas and where such developments would lessen the degree of riparian use.	

**Relevant Sections** 



# **LG 2 - Rangeland Health:** Rangelands are healthy and sustainable over the long-term. Rangelands are meeting or moving toward forest plan, ecosystem, and site-specific desired conditions.

- Prioritize and perform an interdisciplinary team rangeland assessment (e.g., long-term condition and trend transects and proper functioning condition assessments (PFC)) to determine if key areas are meeting or moving toward desired conditions and resource objectives. Adjust livestock management as necessary.
- Evaluate ecosystem health. Indicators used in the evaluation include, but are not limited to: measures of riparian structure and function; the amount and distribution of noxious weeds and invasive nonnative species; soil health; threatened, endangered, proposed, candidate and sensitive species habitat; rare plant species vigor; plant community composition and structure; sensitive heritage resources; and water quality. Adjust livestock management as necessary.
- Review and incorporate the Forest Plan Noxious Weed Management Strategy.
- Implement Best Management Practices for water quality.

# **Consistency Assessment**

**Not Applicable.** The Build Alternatives would not impede rangeland assessment and ecosystem evaluations or interfere with implementation of management strategies or best management practices.

#### Wildfire

**Fire 1 - Fire Prevention:** Reduce the number of human-caused wildland fires and associated human and environmental impacts. Focus fire prevention programs on the urban interface, threatened, endangered, proposed, candidate and sensitive species habitat, vegetative areas threatened with type conversion and areas of major recreation use:

- Continue environmental and fire prevention classroom education in local schools to reach the diverse communities the Forest Service serves.
- Implement Forest Fire Restrictions and Closure Plan as appropriate, including an internal/external public communication plan.
- Continue the activation and utilization of the National Fire Prevention and Education Teams as appropriate in order to augment local fire prevention resources.
- Develop and implement a plan to expand structure hazard reduction from 30' zones to 100' zones of clearance.
- Continue to refine the process of implementing partial or full national forest closure as appropriate in order to increase the margin of public and firefighter safety.

**Consistent.** As discussed in Section 3.11, Safety and Security, the Authority's would form a FLSSC to review issues that are critical to fire and life safety and security, to acquire input and concurrence from the state and local authorities having jurisdiction over the proposed designs to meet code requirements, and to comply with state and local fire code standards or fire and life safety hazard programs during the design phase.

The fire and life-safety program would focus on the fire and life safety characteristics specific to each HSR segment to provide input on local building codes or requirements that align with the emergency response characteristics and capabilities. Representation and operation FLSSCs would be coordinated with local emergency response organizations to provide an understanding of the HSR system, facilities, and operations, and to obtain their input for modifications to emergency response operations and facilities.

The Authority would invite the USFS to participate in the FLSSC, and would incorporate applicable fire safety, treatment, and protection policies outlined in the ANF LMP.



Relevant Sections	Consistency Assessment
<ul> <li>Fire 2 - Direct Community Protection: Reduce the number of high risk/high value, and high and moderate risk acres using mechanical treatments, grazing, and prescribed fire. Identify and schedule for treatment the high risk and high value acres near communities and developed recreation sites, including the installation of Wildland/Urban interface (WUI) Defense and Threat Zone vegetation treatments. Highest priority should be given to those areas with substantial drought and insect-killed vegetation that present a significant threat to life and property in entire communities:</li> <li>Promote removal of tree mortality adjacent to structures as the first step in reducing threats to human life and investments.</li> <li>When National Forest System lands are managed for direct community protection, consider the use of Memorandums of Understanding with Fire Safe Councils as a means of allowing residents to meet state fire law or county brush clearance ordinances on a combination of private and public lands.</li> <li>Herbicides or the repetitive use of prescribed fire may be used in the WUI Defense zone on National Forest System land to avoid expensive treatments of resprouting chaparral species.</li> </ul>	Consistent. As outlined above and discussed in Section 3.11, Safety and Security, the Authority would form an FLSSC to review issues critical to fire and life safety and comply with state and local fire code standards or fire and life safety hazard programs during the design phase. The Authority would invite the USFS to participate in the FLSSC, and would incorporate applicable fire safety, treatment, and protection policies outlined in the ANF LMP.
<ul> <li>Fire 3 - Fire Suppression Emphasis: All fires either on the national forest or that threaten the national forest will be suppressed. Wildland fires that pose life safety threats, threaten communities, improvements or infrastructure will receive a management response commensurate with minimizing acres burned. An appropriate management response (including a full range of suppression strategies) may be used elsewhere on the national forest where natural and cultural resource impacts along with fire suppression costs are primary concerns.</li> <li>Cross train with other fire agencies to improve suppression coordination and performance on fires burning in the Wildland/Urban Interface or developed area intermix.</li> <li>Continue to expand mutual aid agreements with fire cooperators in order to ensure the coverage of key fire stations during periods of fire resource drawdown.</li> <li>Continue the evaluation of current and future fire station locations with respect to strategic location, changing demographics, suitability and operating costs.</li> <li>Implement a "Fireshed" analysis of the national forest to either validate or modify current fire management strategies and tactics.</li> </ul>	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to coordinate fire management response services.



Relevant Sections	Consistency Assessment
<ul> <li>Fire 4 - Firefighter and Public Safety: Improving firefighter and public safety is the primary objective in fire management. All other activities are tiered to this core value. Integrate fire management activities with those of other government agencies that share a mutual interest or benefit in fire activities on the national forest. Conduct fire management activities in a cost-effective manner:</li> <li>Improve residential inspection capability to enhance the defensible space around structures.</li> <li>In concert with other agencies and Fire Safe Councils develop evacuation and structure protection plans that will enhance both firefighter and public safety.</li> <li>Maintain program reviews, training and qualification standards contained in the Fire Management Plan.</li> </ul>	Not Applicable. The Build Alternatives would not interfere with the USFS's abilities to coordinate fire protection services.
<ul> <li>Coordinate meetings, training and workshops with employees and cooperating fire agencies to improve fire and emergency operations capability and preparedness.</li> </ul>	
<ul> <li>Cooperate with local agencies to develop and build-out an inter-operable radio communications system for emergency response and incident management in southern California.</li> </ul>	
Fire 5 – Fuel breaks and Indirect Community Protection: Maintain the existing system of roadside fuel breaks and fuel breaks along watershed boundaries to minimize fire size and the number of communities threatened by both fires and floods. Consider constructing new fuel breaks on land outside of wilderness or other special designations.	Consistent. As outlined above and discussed in Section 3.11, Safety and Security, the Authority would form an FLSSC to review issues critical to fire
<ul> <li>Consider an opportunistic approach to fuels management. Take advantage of previously burned or treated areas to link future fuels and vegetation management or wildlife habitat improvement projects when doing fuels planning.</li> </ul>	and life safety and comply with state and local fire code standards or fir and life safety hazard programs during the design phase. The Authority would invite the USFS to participate in the FLSSC, and would incorpora
<ul> <li>Use fire landscape analysis to aid in the design of future fuel break systems, maintain multiple lines of community defense, and to minimize future wildland fire size.</li> </ul>	applicable fire safety, treatment, and protection policies outlined in the ANF LMP.
<ul> <li>Develop a plan to minimize the propagation of invasive nonnative species during fire suppression and fuels or vegetation management activities.</li> </ul>	



# 4.2 Angeles National Forest Land Management Plan – Part 3: Design Criteria for the Southern California National Forests

The Angeles National Forest Land Management Plan – Part 3: Design Criteria for the Southern California National Forests is one of the three-part forest plan for the Southern California National Forests. Part 3 specifies the design criteria or 'the rules' that the USFS utilizes to achieve the desired conditions identified in in Part 1 of the ANF Land Management Plan. The consistency assessment column in Table 3.1-B-2 evaluates the consistency of the HSR Build Alternatives with the sections and policies of the Angeles National Forest Land Management Plan. These discussions refer to Chapter 3 of the Final EIR/EIS, and frequently include references to IAMFs and mitigation measures described therein.



Table 3.1-B-2: Angeles National Forest Land Management Plan – Part 3 Policy Consistency Analysis

Relevant Sections	Consistency Assessment
Vegetation Management Standards	
<b>S1</b> : Long-Term Sustained Yield (36 C.F.R. 219.27 (c) (2)). No land is currently identified as suitable for timber sale production in southern California, and the allowable sale quantity (ASQ) is zero. Harvest may occur to meet wildlife, fuels, watershed or other needs.	
S2: Appropriate Vegetation Management Practices (Including Limitations on Even-Aged Timber Harvest Methods) (36 C.F.R. 219.27 (c) (6)). The silvicultural systems shown, by forest and rangeland cover-types in table 3.1: Appropriate Silviculture Systems and Vegetation Treatments by General Forest Type, which meet the management objectives for the landscape or individual stands of trees within a landscape setting are acceptable. These silvicultural systems are to be applied in a manner that will favor natural regeneration when possible. Artificial regeneration will be necessary following uncharacteristic wildland fires, insect and disease attacks, and damaging weather events. Ground based harvest systems will normally operate on slopes up to 35 percent, and on short steep pitches up to 50 percent. Ground based equipment will be used on steep slopes when supported by site and operation specific analysis. Cable or aerial systems will generally be used on sustained slopes greater than 35 percent.	Consistent. The Build Alternatives do not propose timber harvest or tree thinning and would not interfere with the USFS's abilities to implement appropriate forest management and vegetation management practices on lands managed by the USFS.
<b>S3</b> : Maximum Size Openings Created by Timber Harvest (36 C.F.R. 219.27 (d) (2)). Table 3.1: Appropriate Silviculture Systems and Vegetation Treatments by General Forest Type identifies the maximum allowable opening acreage for forest types. This limit shall not apply where harvests are necessary as a result of catastrophic conditions, such as fire, insect and disease attack, windstorm, or drought.	
<b>S4</b> : Design fuel breaks in forests to be open; averaging no more than 40 percent crown closure along the center corridor with an understory of grasses, forbs, and small shrubs. Thinning of forests should favor retention of large-diameter trees. Crown closure and understory vegetation increase gradually, moving from the inside toward the outside of the shaded fuel break.	
<b>S5</b> : Treat all freshly cut live or recently dead conifer stumps with a registered fungicide to prevent the establishment of annosus root disease.	



Relevant Sections	Consistency Assessment
<b>S6</b> : Seed to be used on National Forest System lands will be certified to be free of noxious weeds. Where available, only locally collected native seed will be used, or seeds will be used from species that are noninvasive and nonpersistent. When available, wattles, mulch and livestock feed to be used on National Forest System lands will be certified to be free of noxious weeds.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would prepare a Restoration and Revegetation Plan (BIO-MM#6) to address temporary impacts resulting from ground-disturbing activities within areas that potentially support special-status species, wetlands and/or other aquatic resources. The Restoration and Revegetation Plan will require use of a locally sourced native seed mix and certified weed-free straw and mulch.
Aesthetic Management Standards	
<b>S9</b> : Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map.	Consistent for the Refined SR14 and SR14A Build Alternatives. The Refined SR14 and SR14A Build Alternatives would pass through High (appears unaltered) and Moderate (slightly unaltered) SIOs. However, most HSR facilities within the ANF boundaries would occur in underground tunnels. Construction activity would include spoils deposition at the Vulcan Mine site, resulting in a condition more closely resembling the surrounding topography. This would contribute beneficially to the SIO levels of the area.  Inconsistent for the E1, E1A, E2, and E2A Build Alternatives. As is the case for the Refined SR14 and SR14A Build Alternatives, the E1, E1A, E2 and E2A Build Alternatives would pass through High and Moderate SIOs with most of their associated facilities occurring in underground tunnels. Associated HSR facilities, while outside of the ANF boundaries, would be visible from areas within the ANF, which may drop SIO levels of those areas.



# Relevant Sections Consistency Assessment

**\$10**: Scenic Integrity Objectives will be met with the following exceptions:

- Minor adjustments not to exceed a drop of one SIO level is allowable with the Forest Supervisor's approval.
- Temporary drops of more than one SIO level may be made during and immediately following project implementation providing they do not exceed three years in duration.

Consistent for the Refined SR14 and SR14A Build Alternatives. The Refined SR14 and SR14A Build Alternative would pass through High (appears unaltered) and Moderate (slightly unaltered) SIOs. However, most HSR facilities within the ANF boundaries would occur in underground tunnels. Surface improvements would be visible from High SIO areas, including temporary construction activity at the Vulcan Mine site. Construction activity would include restoring the Vulcan Mine site, resulting in a condition more closely resembling the surrounding topography. This would contribute beneficially to the SIO levels of the area, and designated SIO levels of other project areas would remain consistent.

Inconsistent for the E1, E1A, E2, and E2A Build Alternatives. The E1, E1A, E2, and E2A Build Alternatives would also pass through High and Moderate SIOs, with most of their associated facilities occurring in underground tunnels as well. Temporary construction activities as well as surface improvements would be visible from High SIO areas, including at-grade alignment at Aliso Canyon. Associated HSR facilities, while outside of the ANF boundaries, would be visible from areas within the ANF, which may drop SIO levels of those areas for a period of more than three years.

## Fish and Wildlife Standards (When Implementing All Activities)

**S11**: When occupied or suitable habitat for a threatened, endangered, proposed, candidate or sensitive (TEPCS) species is present on an ongoing or proposed project site, consider species guidance documents to develop project-specific or activity-specific design criteria. This guidance is intended to provide a range of possible conservation measures that may be selectively applied during site-specific planning to avoid, minimize or mitigate negative long-term effects on threatened, endangered, proposed, candidate or sensitive species and habitat. Involve appropriate resource specialists in the identification of relevant design criteria. Include review of species guidance documents in fire suppression or other emergency actions when and to the extent practicable.

Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, construction of the Build Alternatives could interfere with suitable TEPCS habitat within the ANF. The Authority would avoid, minimize, and mitigate effects to special-status plant species and communities through implementation of several conservation measures, including pre-construction surveys, relocation plans, and restoration and revegetation plans. In addition, the Biological Assessment (prepared for the U.S. Fish and Wildlife Service) and the Biological Evaluation (prepared for the USFS) will outline additional design criteria and conservation practice that the Authority would implement to promote the conservation and recovery of TEPCS species and associated habitat.



Relevant Sections	Consistency Assessment
<b>S12</b> : When implementing new projects in areas that provide for threatened, endangered, proposed, and candidate species, use design criteria and conservation practices so that discretionary uses and facilities promote the conservation and recovery of these species and their habitats. Accept short-term impacts where long-term effects would provide a net benefit for the species and its habitat where needed to achieve multiple-use objectives.	Consistent. Although the Build Alternatives would encounter TEPCS habitat within the ANF, the Authority would avoid, minimize, and mitigate effects to special-status plant species and communities through implementation of several conservation measures, including pre-construction surveys, relocation plans, and restoration and revegetation plans. The Authority proposes to implement a long-term AMMP, which will include ongoing monitoring, management, and reporting activities to ensure that foreseeable and unforeseeable hydrological or hydrogeological impacts that may arise on USFS lands are detected and remediated in a timely manner. In addition, the Biological Assessment and the Biological Evaluation would outline additional design criteria and conservation practice that the Authority would implement to promote the conservation and recovery of TEPCS species and associated habitat.
<b>S13</b> : Manage Critical Biological land use zones so that activities and discretionary uses are either neutral or beneficial for the species and habitats for which the area was established. Accept short-term adverse impacts to threatened, endangered, and proposed species if such impacts will be compensated by the accrual of long-term benefits to habitat for threatened, endangered, and candidate species.	Inconsistent. As discussed in Section 3.13, Station Planning, Land Use, and Development, the E1, E1A, E2, and E2A Build Alternatives would require permanent facilities within the Aliso Canyon Road right-of-way; this area is currently designated as a Critical Biological land use zone. The affected Critical Biological area is established to protect the California red-legged frog, a special-status amphibian species. The Refined SR14 and SR14A Build Alternatives would not affect areas designated as a Critical Biological land use zone. As discussed further in Section 3.7, Biological Resources and Wetlands, a range of IAMFs and mitigation measures would be implemented to reduce biological effects on amphibians and amphibian habitat. However, the Build Alternatives would be unlikely to result in neutral or beneficial effects for this species in this Critical Biological land use zone.
<b>S14</b> : Where available and within the capability of the site retain a minimum of six downed logs per acre (minimum 12 inches diameter and 120 total linear feet) and 10 to 15 hard snags per five acres (minimum 16 inches diameter at breast height and 40 feet tall, or next largest available). Exception allowed in Wildland/Urban Interface Defense Zones, fuel breaks, and where they pose a safety hazard.	
<b>S15</b> : Within riparian conservation areas retain snags and downed logs unless they are identified as a threat to life, property, or sustainability of the riparian conservation area.	<b>Not Applicable.</b> The Build Alternatives would not impede implementation of this standard to retain snags and downed logs within riparian conservation areas.
<b>\$17</b> : In areas outside of Wildland/Urban Interface Defense Zones and fuel breaks, retain soft snags and acorn storage trees unless they are a safety hazard, fire threat, or impediment operability.	



Relevant Sections	Consistency Assessment
<b>S18</b> : Protect known active and inactive raptor nest areas. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging.	Partially Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority conduct visual pre-construction surveys for nesting birds and active nests in the construction area (BIO-MM#14). If active bird nests are observed during the pre-construction survey, the Authority will delineate no-work buffers. However, BIO-MM#14 would not require protection of inactive raptor nests, and inactive nests will be removed if avoidance of inactive nests is infeasible. In the case of bald and golden eagles or Swainson's hawk, permits under the Bald and Golden Eagle Protection Act or California Endangered Species Act may be obtained prior to removal.
<b>S19</b> : Protect all spotted owl territories identified in the Statewide California Department of Fish and Game database (numbered owl sites) and new sites that meet the state criteria by maintaining or enhancing habitat conditions over the long- term to the greatest extent practicable while protecting life and property. Use management guidelines in the species conservation strategy (or subsequent species guidance document) to further evaluate protection needs for projects, uses and activities.	
\$20: Maintain a limited operating period (LOP) prohibiting activities within approximately.25 mile of a California spotted owl nest site, or activity center where nest site is unknown, during the breeding season (February 1 through August 15), unless surveys confirm that the owls are not nesting. Follow the USDA Forest Service (1993, 1994 or subsequent) protocol to determine whether owls are nesting. The LOP does not apply to existing road and trail use and maintenance, use of existing developed recreation sites, or existing special uses, such as recreation residence tracts. When evaluating the need to implement a limited operating period, site- and project-specific factors need to be considered (use species management strategy or subsequent guidance).	Not Applicable. The Build Alternatives would not encounter spotted owl habitat.
<b>S21</b> : California spotted owl habitat that is lost to development for a compelling reason should be mitigated up to a two-to-one basis considering quality of habitat lost, number of territories affected, reproductive history of pair(s) displaced, location, and related factors. Development includes ski area creation or expansion, new roads or trails, special-use sites and corridors, new recreation or administrative facilities, land exchanges, etc. Mitigation land should be sought first within the mountain range where the impacts occur; if this is not possible, mitigation land should be acquired within the San Gabriel or San Bernardino Mountains	



Relevant Sections	Consistency Assessment
<b>S22</b> : Except where it may adversely affect threatened and endangered species, linear structures such as fences, major highways, utility corridors, bridge upgrades or replacements, and canals will be designed and built to allow for fish and wildlife movement.	Consistent. Because the Build Alternatives would be underground as they traverse the ANF, they would not substantially interfere with wildlife movement within lands managed by the USFS. At-grade facilities proposed within the ANF, including utility corridors, electrical transmission lines, and adits, would not create substantial barriers to wildlife movement. Refer to Section 3.7, Biological Resources and Wetlands, for more information on wildlife connectivity and movement.
<b>S23</b> : When it is necessary to close abandoned mines or buildings for public safety or to protect the environment, do so in a manner that will maintain habitat for bat species of concern, to the extent practicable.	<b>Consistent.</b> As discussed in Section 3.7, Biological Resources and Wetlands, the Build Alternatives would include conservation measures to protect special-status bats within the construction area, including pre-construction surveys and avoidance, relocation, exclusion, and deterrence measures (BIO-MM#24 through BIO-MM#27).
<b>S24</b> : Mitigate impacts of ongoing uses and management activities on threatened, endangered, proposed, and candidate species.	<b>Consistent.</b> Because the Build Alternatives would be underground as they traverse the ANF, operation of the Build Alternatives would not substantially impact TEPCS on lands managed by the USFS. Furthermore, as discussed in Section 3.7, Biological Resources and Wetlands, the Build Alternatives would implement operational IAMFs and mitigation measures to reduce potential impacts to special-status species or habitat.
<b>\$25</b> : Conduct road and trail maintenance activities during the season of year that would have the least impact on threatened, endangered, and proposed wildlife species in occupied habitats, except as provided by site-specific consultation.	Consistent. HSR construction activities would rely on existing roads within the ANF to access adit facilities. As discussed in Section 3.2, Transportation, construction could require temporary lane or road closures, underground utility work, or construction-related trips that could interfere with vehicles, pedestrians, bicyclists, transit routes, and local access. Construction could also lead to temporary disruption of transportation system operations and possible damage to elements of the roadway system such as pavement and bridges. Any structural damage to public roadways caused by HSR construction or construction access (TR-IAMF#1) would be repaired; such maintenance and repair activities would implement the biological IAMF and mitigation measures listed in Section 3.7, Biological Resources and Wetlands, to reduce potential impacts to special-status species and habitat. The Build Alternatives do not propose other road and trail maintenance activities within the ANF.
<b>S26</b> : Prohibit use by domestic sheep and goats within 9 miles of occupied bighorn sheep habitat.	Not Applicable. The Build Alternatives would not encourage use of domestic sheep and goats.
<b>S27</b> : Use seasonal closures as specified by site-specific analysis to protect occupied bald eagle wintering, breeding, or nesting habitat.	Consistent. As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would conduct pre-construction surveys for bald eagle nests and would implement avoidance measures for active eagle nests (BIO-MM#14, BIO-MM#65, and BIO-MM#66). The Build Alternatives would not otherwise impede the USFS's ability to use seasonal closures to protect occupied bald eagle habitat.



Relevant Sections	Consistency Assessment
<b>S28</b> : Avoid or minimize disturbance to breeding and roosting California condors by prohibiting or restricting management activities and human uses within 1.5 miles of active California condor nest sites and within 0.5 mile of active roosts. Refer to California condor species account (or subsequent species guidance document) for additional guidance.	<b>Consistent.</b> As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would implement conservation measures to protect California condors (BIO-MM#76, BIO-MM#16, and BIO-MM#71 through BIO-MM#76).
<b>\$29</b> : Avoid collection of special forest products where it may negatively affect recovery or occupied habitat of threatened, endangered and proposed species, except where it is appropriate in response to requests from Native Americans.	Not Applicable. The Build Alternatives do not propose collection of forest products.
<b>\$30</b> : Avoid activities that result in removal, crushing, burying, burning, or mowing of host plants within critical and occupied habitat for threatened, endangered, and proposed butterfly species; unless guided differently by a species-specific consultation.	Not Applicable. There is no critical and/or occupied habitat for threatened, endangered, and proposed butterfly species within the Build Alternatives' footprints.
<b>S31</b> : Design new facilities or expansion of existing facilities to direct public use away from occupied habitat for threatened, endangered, proposed and candidate species.	Not Applicable. The Build Alternatives would not increase public use at occupied TEPCS species habitat within the ANF.
<b>S32</b> : When surveys for species presence/absence are done for threatened, endangered, and proposed species, use established survey protocols, where such protocols exist.	<b>Consistent.</b> As discussed in Section 3.7, Biological Resources and Wetlands, the Authority would use established survey protocols when implementing mitigation measures that require species surveys.
\$33: Manage Special Interest Areas so that activities and discretionary uses are either neutral or beneficial for the resource values for which the area was established. Accept short-term adverse impacts to these resource values if such impacts will be compensated by the accrual of long-term benefit.	Consistent. The Refined SR14 and SR14A Build Alternatives would not encounter Special Interest Areas. The E1, E1A, E2, and E2A Build Alternatives would traverse the Aliso-Arrastre Canyon Special Interest Area (USFS 2005). However, permanent facilities would be located outside ANF boundaries. HSR facilities within the Aliso-Arrastre Special Interest Area include a permanent electrical utility line along an existing electrical utility corridor and a temporary construction staging area along Arrastre Canyon Road. Construction staging areas would be restored to pre-project conditions to the maximum extent practicable after construction is complete. Therefore, the Build Alternatives would be consistent with the Aliso-Arrastre Special Interest Area's values and features, such as the documentation and preservation of its significant cultural and archaeological resources.



Relevant Sections	Consistency Assessment
Soil, Water, Riparian and Heritage Standards (When Implementing All Activities)	
S45: All construction, reconstruction, operation and maintenance of tunnels on National Forest System lands shall use practices that minimize adverse effects on groundwater aquifers and their surface expressions.	Consistent. Tunnel construction, operation, and maintenance for the Build Alternatives would implement impact avoidance and minimization features that avoid and minimize adverse effects to groundwater aquifers and surface expressions to the maximum extent practicable. Utilization of hydrogeological monitoring, modeling, subsurface mapping, and geotechnical investigation would allow for avoidance of aquifer surface expressions for construction staging areas and access roads, establish baseline conditions for groundwater aquifers, and provide supplemental water to restore aquifers to offset changes to groundwater levels. Refer to Section 2, Project Alternatives, and Section 3.9, Hydrology and Water Resources, for further discussion of minimization of impacts to groundwater resources during construction activities.  Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Groundwater losses could affect surface and subsurface water resources. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized losses of groundwater that could also affect surface water resources.
	To address this impact, the Authority would prepare and implement a long-term AMMP, described in HWR-MM#4. The AMMP includes monitoring protocols to establish baseline conditions of surface water resources and to detect changes in groundwater conditions related to tunnel construction to ensure timely implementation of remedial measures. HWR-MM#4 further requires that the AMMP include provisions for augmenting water supplies for wells and surface water resources and establishes performance standards that the remedial actions must achieve to approximately match baseline conditions. The measures required to augment water supplies and maintain baseline conditions are feasible (Appendix 3.8-D) to implement for areas subject to such impacts and would effectively reduce or offset impacts to affected water resources. With implementation of these mitigation measures, the Build Alternatives would not result in a substantial adverse effect surface resources a result

of indirect effects from tunnel construction. The impact to groundwater levels from



Relevant Sections	Consistency Assessment
	tunnel construction could potentially persist in some areas for several years, however, such conditions would be expected to return to normal over time.
<ul> <li>S46: Surface water diversions and groundwater extractions, including wells and spring developments will only be authorized when it is demonstrated by the user, and/or agreed to by the Forest Service, that the water extracted is excess to the current and reasonably foreseeable future needs of forest resources.</li> <li>Consideration of beneficial uses, existing water rights, and the absence of other available water sources will be part of the water extraction application.</li> <li>Approved extractions and diversions will provide for long-term protection and reasonable use of surface water and groundwater resources.</li> <li>Feasibility and sustainability assessments should be appropriately scaled to the magnitude of the extraction or diversion proposed.</li> </ul>	Consistent. The Build Alternatives would not involve the deliberate extraction of groundwater resources nor diversion of water from surface water bodies; however, the potential for changes in groundwater levels due to tunneling were analyzed in Section 3.8.6.  To address this potential impact, the Authority would prepare and implement a long-term AMMP, described in HWR-MM#4. The AMMP includes monitoring protocols to establish baseline conditions of surface water resources and to detect changes in groundwater conditions related to tunnel construction to ensure timely implementation of remedial measures. HWR-MM#4 further requires that the AMMP include provisions for augmenting water supplies for wells and surface water resources and establishes performance standards that the remedial actions must achieve to approximately match baseline conditions.  Additionally, the Build Alternatives would comply with all conditions of the Special-Use Authorization issued by the USFS.
Soil, Water, Riparian and Heritage Standards (Applicable Within Riparian Conserv	ration Areas)
<b>S47</b> : When designing new projects in riparian areas, apply the Five-Step Project Screening Process for Riparian Conservation Areas.	Consistent. The Build Alternatives do not propose development within riparian areas. Ancillary facilities and utility power lines associated with the Build Alternatives may impact riparian areas within the ANF. Restoration of temporary riparian habitat impacts after construction (BIO-MM#32) as well as compensatory mitigation for permanent riparian habitat impacts (BIO-MM#46) would ensure any impacts to riparian habitat in the ANF would be minimized.
<b>S48</b> : For non-hydroelectric and exempt hydroelectric surface water development proposals (such as flood control reservoirs and municipal water supplies), instream flows favorable to the maintenance and restoration of riparian-dependent and aquatic resources and channel conditions will be required.	<b>Not Applicable.</b> The Build Alternatives do not propose non-hydroelectric and exempt hydroelectric surface water development proposals.
<b>S49</b> : Require fish passage instream flows associated with dams and impoundments where fish passage will enhance or restore native or selected nonnative fish distribution and not cause adverse effects to other native species.	Not Applicable. The Build Alternatives do not propose dams or impoundments.
Soil, Water, Riparian and Heritage Standards (When Implementing Recreation Act	ivities)
<b>\$50</b> : Mitigate negative long-term impacts from recreation use to soil, watershed, riparian or heritage resources.	Not Applicable. The Build Alternatives do not propose recreation activities.



**Relevant Sections Consistency Assessment** Soil, Water, Riparian and Heritage Standards (When Implementing Livestock Grazing Activities) **\$51**: Allotment specific review of rangeland capability and suitability guidelines shall occur as part of a site-specific allotment or livestock grazing area level National Environmental Policy Act (NEPA) analysis. Permits will not be issued for livestock grazing areas determined to be not suitable or have insufficient grazing areas for sustaining a livestock operation. \$52: Soil Cover: Maintain an effective soil cover of 60 percent to provide for soil protection, water infiltration, and reduce the risk of accelerated soil erosion within designated livestock grazing areas. Soil cover includes: living vegetation (grasses, forbs, and prostrate plants); plant litter; and surface rock fragments greater than 3/4 inch. \$53: Salt and Mineral Locations: Salt and/or other supplements will be located greater than ½ mile from all water sources including: ponds; riparian areas; meadows; springs; seeps; vernal pools; susceptible threatened, endangered, proposed, **Not Applicable.** The Build Alternatives do not propose livestock grazing activities. candidate and sensitive species and habitats; livestock and wildlife water developments; concentrated and developed recreation areas; and other sensitive areas including sensitive heritage resources, unless approved by the responsible Forest Service officer. **\$54**: Burned Areas: After a wildland fire, prior to initiating grazing, a site-specific analysis will be performed for designated livestock areas to determine the level and location(s) of livestock use, if any. **\$55**: Evaluate new proposals for concentrated stock areas (e.g., livestock handling and management facilities, pack stations, equestrian campgrounds, and corrals) located within 5 miles of occupied southwestern willow flycatcher and least Bell's vireo habitats. Apply broad landscape level analysis in the biological assessment for the project to determine if such action will increase brood parasitism pressure by the brown-headed cowbird.



Relevant Sections	Consistency Assessment
<b>S56</b> : Retain the following: average amounts of residual dry matter (RDM) until the onset of the rainy season; percent utilization; and percent streambank alteration on grazed rangelands. Precipitation is based on long-term averages. Streambank alteration is defined as alteration and displacement of rooted plants and physical soil structure by livestock per stream reach in wet montane meadows and Rosgen C3 channels. Percent woody browse is based on current year's growth of shrubs, unless required to meet other vegetation management objectives. Livestock will be moved from grazing units when thresholds are met as determined by established protocols (see table 3-2. Livestock Grazing Utilization Standards).	
Soil, Water, Riparian and Heritage Standards (When Implementing Minerals and E	nergy Activities)
<b>\$57</b> : Free-use rock, invertebrate fossil, and mineral collecting for non-commercial personal uses must be approved by the authorized officer.	Not Applicable. The Build Alternatives do not propose non-commercial collecting.
<b>\$58</b> : Evaluate geologic hazards and develop mitigations where risks to life, property or resources are identified when planning and implementing management activities.	<b>Consistent.</b> Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources, evaluates geologic hazards and proposes mitigation to minimize risks to life, property or resources associated with HSR construction and operation within lands managed by the USFS.
Wild and Scenic River Standards	
<b>S59</b> : Manage eligible wild and scenic river segments to perpetuate their free-flowing condition and proposed classifications and protect and enhance their outstandingly remarkable values and water quality through the suitability study period and until designated or released from consideration. When management activities are proposed that may compromise the outstandingly remarkable value(s), potential classification, or free-flowing character of an eligible wild and scenic river segment, a suitability study will be completed for that eligible river segment prior to initiating activities.	Not Applicable. The Build Alternatives would not encounter Wild and Scenic Rivers within the ANF.
Cultural and Historic Standards	
<b>S60</b> : Until proper evaluation occurs, known heritage resource sites shall be afforded the same consideration and protection as those properties evaluated as eligible to the National Register of Historic Places.	<b>Consistent.</b> The Authority evaluated cultural resources and historic properties within the ANF that could potentially be affected by the Build Alternatives for eligibility for the National Register of Historic Places. Refer to Section 3.17, Cultural Resources, for more information.



Relevant Sections	Consistency Assessment
<b>S61</b> : Leave human remains which are not under the jurisdiction of the County Coroner undisturbed unless there is an urgent reason for their disinterment. In case of accidental disturbance of human remains, excavation of human remains, or subsequent re-internment of human remains follow national forest, federal and tribal policies.	<b>Consistent.</b> As discussed in Section 3.17, Cultural Resources, the Authority would follow USFS policies in the event of accidental disturbance of human remains, excavation of human remains, or subsequent re-internment of human remains within the ANF.
<b>S62</b> : Protect the access to and the use of sensitive traditional tribal use areas.	<b>Consistent.</b> As discussed in Section 3.17, Cultural Resources, the Authority evaluated potential impacts to sensitive tribal resources within the ANF. The Build Alternatives would not otherwise provide or encourage access to sensitive tribal areas.
Place-Based Program Emphasis	
Soledad Front Country	
Program Emphasis: Management emphasis is expected to focus on the protection of communities from the threat of fire, the management of high levels of recreational use, and the maintenance of urban and forest infrastructures (facilities). The success of this emphasis is dependent on a sustainable level of development and the delicate balance between the needs of people and the effects of those uses on the plant and animal communities in the national forest. Uses must be balanced to promote the conservation of valuable natural resources and to sustain the needs of people. The significance of the heritage resources in the Place is recognized through the designation of special areas managed for the heritage resource value. Special emphasis will be given to acquiring private land between the San Gabriel and Sierra Pelona Mountain Ranges to connect the Pacific Crest National Scenic Trail. The national forest will focus on protection of open space and boundary management in anticipation of future adjacent development.	Consistent. The majority of the Build Alternatives alignment would occur underground within the ANF. Surface impacts in the ANF would occur on inholdings and along existing roadways and utility corridors, which would ensure consistency with the program emphasis.  As discussed in Section 3.11, Safety and Security, the Authority would form an FLSSC to review issues critical to fire and life safety and comply with state and local fire code standards or fire and life safety hazard programs during the design phase. The Authority designed the Build Alternatives such that they avoid significant wash and open space areas in the ANF to protect sensitive species. Where impacts cannot be avoided, the Authority has proposed mitigation measures to address impacts to special-status species. For a detailed discussion of these measures, refer to Section 3.7, Biological Resources and Wetlands.



# Relevant Sections Consistency Assessment

#### **Angeles Uplands West**

Program Emphasis: Management emphasis is focused on forest health, particularly protection of pockets of large conifers. Management is also focused on the high levels of recreational use, as well as the urban and national forest infrastructure present, in a balanced and sustainable manner consistent with preserving the dramatic canyon panoramas. Culturally and ethnically diverse visitors are served in a relevant manner. Historic Vetter Lookout will be a focal point for interpretation and community outreach. The Angeles Crest Scenic Byway Corridor Management Plan is implemented and rural routes showcase key destinations of the Scenic Byway. Community defense from wildland fire will be emphasized. Protection and enhancement of threatened, endangered, proposed, candidate and sensitive species such as the arroyo toad, California red-legged frog, southwestern willow flycatcher, San Diego horned lizard, two-striped garter snake, western pond turtle and rare and sensitive plants will be emphasized in all activities. Surveys will be conducted and critical habitat will be protected for the California red-legged frog. To restore healthy riparian systems, Arundo and other exotic species eradication efforts will be emphasized.

**Consistent.** The majority of the Build Alternatives alignment would occur underground in the ANF. Surface impacts in the ANF would occur on inholdings and along existing roadways and utility corridors, which would ensure consistency with the program emphasis.

As discussed in Section 3.11, Safety and Security, the Authority would form an FLSSC to review issues critical to fire and life safety and comply with state and local fire code standards or fire and life safety hazard programs during the design phase. The Authority designed the Build Alternatives such that they avoid significant wash and open space areas in the ANF to protect sensitive species. Where impacts cannot be avoided, the Authority has proposed mitigation measures to address impacts to special-status species. For a detailed discussion of these measures, refer to Section 3.7, Biological Resources and Wetlands.

#### **The Front Country Places**

Program Emphasis: Management emphasis is on protecting communities from the threat of fire, managing for high recreational use levels, and maintaining urban and national forest infrastructure (facilities) consistent with the natural setting. An extensive trail network is managed to provide opportunities for hiking, biking, and equestrian trips of short duration and to provide linkages to the national forest trail network and the Pacific Crest Trail. Picnic areas and campgrounds along the Front Country Places provide close to home "first visit" opportunities. Mount Wilson is managed as a major trail destination, vista point and astronomical research site. The national forest will focus on open space protection along the urban interface. Local communities and the national forest cooperate to develop environmental education and conservation stewardship programs relevant to urban students and families, especially for the San Gabriel Canyon entry point. The national forest is active in regional planning efforts to establish wildlife linkages connecting the San Gabriel Mountains to the Santa Ana. Santa Susana, and Verdugo Mountains, Uses and activities are managed to provide opportunities for establishment of a regional wildlife linkage in the Place.

**Consistent.** The majority of the Build Alternatives alignment would occur underground within the ANF. Surface impacts within the ANF would occur on inholdings and along existing roadways and utility corridors, which would ensure consistency with the program emphasis.

As discussed in Section 3.11, Safety and Security, the Authority would form an FLSSC to review issues critical to fire and life safety and comply with state and local fire code standards or fire and life safety hazard programs during the design phase. Section 3.7, Biological Resources and Wetlands, provides an analysis of constraints to wildlife movement within the San Gabriel Mountains wildlife linkage.



# 4.3 San Gabriel Mountains National Monument Management Plan

In 2016, the U.S. Forest Service proposed to amend the 2006 ANF Land Management Plan with a specific management plan to provide for the proper care and management of the objects protected by the proclamation establishing the SGMNM. The plan is intended to provide for protection and interpretation of the scientific and historic objects identified in the proclamation and for continued public access, consistent with their protection. The draft environmental assessment associated with the draft San Gabriel Mountains National Monument Plan Amendment was published in August 2016 for public review and finalized in May 2019. The consistency assessment column of Table 3.1-B-3 evaluates the consistency of the HSR Build Alternatives with SGMNM Management Plan sections and policies. These discussions refer to Chapter 3 of the Final EIR/EIS, and frequently include references to IAMFs and mitigation measures described therein.



Table 3.1-B-3: San Gabriel Mountains National Monument Management Plan Policy Consistency Analysis

Relevant Sections	Consistency Assessment	
Transportation		
<b>Goal 1.</b> Evaluate alternative transportation and public transportation opportunities, including identifying programs that facilitate access from underserved communities, ways to link to public transportation options in gateway communities, and sites appropriate for bus access at key recreation areas.	<b>Not Applicable.</b> The Build Alternatives would not impede public transportation opportunities within the SGMNM.	
<b>Standard 1.</b> Outside of the San Gabriel and Little rock OHV areas, all vehicles are limited to designated roads and trails.	<b>Not Applicable.</b> The Build Alternatives would not encourage increased vehicle use within the SGMNM.	
Sustainable Recreation		
<b>Goal 1.</b> Actively manage recreation in concentrated use areas to improve recreational quality. Avoid or reduce impact on special-status species and aquatic species through improved management of dispersed recreation, designated river access points, transit stops, designated parking, and high-quality support infrastructure and visitor services.	Not Applicable. The Build Alternatives would not affect any active recreational resources (i.e., campgrounds, trails, etc.) or the management of such resources within the SGMNM.	
<b>Goal 2.</b> Strategies aimed at provision of outreach, communication, and recreation service delivery for diverse groups will remain a priority of the Forest Service.	<b>Not Applicable.</b> The Build Alternatives would not impede the USFS's ability to deliver outreach, communication, and recreation services associated with the SGMNM.	
Visitor Experience, Information, and Environmental Education		
<b>Goal 1.</b> Maintain or increase the number of conservation education programs or events per year within the Monument.	<b>Not Applicable.</b> The Build Alternatives would not impede the USFS's ability to provide conservation education programs or events.	
Heritage Resources		
<b>Goal 1.</b> The cultural resources identified in Management Approach 7 are to be enhanced through interpretative measures such as exhibits, displays, formal evaluation and National Register nominations and listing, protection and stabilization treatments, public education, and outreach efforts.	Consistent. The Authority evaluated cultural resources and historic properties within the SGMNM that could potentially be affected by the Build Alternatives for eligibility for the National Register of Historic Places. Refer to Section 3.17, Cultural Resources, for more information. The Build Alternatives would not otherwise create an impediment to the USFS's ability to enhance cultural resources within the SGMNM.	
<b>Standard 1.</b> Cultural resources and historic properties within the Monument will be managed in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations at 36 C.F.R. 800.	<b>Consistent.</b> In accordance with Section 106 of the National Historic Preservation Act, the Authority evaluated cultural resources and historic properties within the SGMNM that could potentially be affected by the Build Alternatives. Refer to Section 3.17, Cultural Resources, for more information.	



Relevant Sections	Consistency Assessment
<b>Standard 2.</b> Pursuant to the Programmatic Agreement between the USDA Forest Service, Pacific Southwest Region (Region 5); California State Historic Preservation Officer; Nevada State Historic Preservation Officer; and the Advisory Council, all cultural resources within the Monument are treated as historic properties and assumed eligible for the National Register of Historic Places until formally evaluated and determined, through consensus, not eligible.	<b>Consistent.</b> The Authority evaluated cultural resources and historic properties within the SGMNM that could potentially be affected by the Build Alternatives for eligibility for the National Register of Historic Places. Refer to Section 3.17, Cultural Resources, for more information.
Biological Resources	
Goal 1. When land management plan monitoring indicates that habitat conditions are degrading or destabilizing, corrective actions will be taken. Corrective actions may include, but are not limited to, restoration, modification of management actions, or other options suitable for the species or watershed affected.	Consistent. The Build Alternatives would not impede the USFS's ability to monitor and respond to changes in habitat conditions.  Tunnel construction under the ANF has the potential to alter hydrogeological conditions, resulting in inflows of groundwater into the tunnel and the subsequent adverse effects on groundwater aquifers. Groundwater losses could affect the hydrology of groundwater-dependent ecosystems, resulting in effects on habitat for threatened, endangered, proposed, candidate, and sensitive species. The Authority has incorporated HYD-IAMF#5, Tunnel Boring Machine Design, HYD-IAMF#6, Tunnel Lining Systems, and HYD-IAMF#7, Grouting into the design and construction methods for tunnels under the ANF to avoid or minimize groundwater inflows into and around tunnels during and after construction. Although HYD-IAMF#5, HYD-IAMF#6, and HYD-IAMF#7 would reduce the amount of potential groundwater loss due to tunnel construction, based on the available information and based on prior tunnel construction experience elsewhere, some groundwater inflow into the tunnels could still occur in during construction. This groundwater flow could result in localized losses of groundwater that could have temporary indirect effects on the hydrology of groundwater-dependent surface water features, including habitat for threatened, endangered, proposed, candidate, and sensitive species.  To address this impact, the Authority would prepare and implement a long-term AMMP. BIO-MM#93 and HYD-MM#4 set forth this requirement, which would require monitoring of groundwater-dependent surface water resources and associated habitat within the Tunnel Construction RSA, providing supplemental water where needed, and remediating adversely effected aquatic, riparian and upland resources identified during monitoring. If restoration of affected areas is not successful, compensatory mitigation to offset impacts would be provided. With implementation of IAMFs and mitigation measures, the Build Alternatives would not adversely affect aquatic, riparia



Relevant Sections	Consistency Assessment	
Mineral Resources		
<b>Suitability of Lands 1.</b> Free-use rock, invertebrate fossil, and mineral collecting for non-commercial personal uses is not suitable within the Monument.	<b>Not Applicable.</b> The Build Alternatives would not result in the collection of free-use rock, invertebrate fossils, or minerals for non-commercial personal uses within the SGMNM.	
Designated Areas and Areas Recommended for Designation		
Suitability of Lands 1. Within the Monument, the Pacific Crest National Scenic Trail (PCT) foreground is not suitable for special-use authorizations for new communication sites and wind generation sites.  Suitability of Lands 2. New roads are not suitable within the foreground of the PCT unless required by law to provide access to private lands or documented as the only prudent and feasible alternative.	Not Applicable. The Build Alternatives would not encounter the PCT within the SGMNM.	
Land Use Zones		
Critical Biological Land Use Zone: This zone includes areas on the ANF that are considered important for the protection of at-risk species.	Consistent. As discussed in Section 3.13, Land Use and Station Area Planning, the Refined SR14 and SR14A Build Alternatives would not encounter Critical Biological Land Use Zones; however, the E1, E1A, E2, and E2A Build Alternatives would traverse 6 acres designated as Critical Biological Land Use Zones. The affected Critical Biological area is primarily set aside to protect the California red-legged frog, a special-status amphibian species. HSR facilities within the Critical Biological area include a permanent electrical utility line along an existing electrical utility corridor and a temporary construction staging area along Aliso Canyon Road. Construction staging areas would be restored to pre-project conditions to the maximum extent practicable after construction is complete. Additionally, as discussed further in Section 3.7, Biological Resources and Wetlands, a range of IAMFs and mitigation measures would be implemented to reduce biological impacts to amphibians and amphibian habitat. Therefore, the Build Alternatives would be consistent with the Land Use Zone.  Consistent for the Refined SR14 and SR14A Build Alternatives. The Refined SR14 and SR14A Build Alternatives would not encounter Critical Biological Land Use Zones.	



### 5 REFERENCES

- California Department of Fish and Wildlife (CDFW). 2019. *Designated Wild and Heritage Trout Waters*. https://www.wildlife.ca.gov/fishing/inland/trout-waters. Accessed in August 2019.
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