BARREN RIDGE RENEWABLE TRANSMISSION PROJECT

Land Use Technical Report
Land Use Technical Report

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TABLE OF CONTENTS

1.0 INTRODUCTION.................................................................................................................. 1

1.1 STUDY PERSONNEL............................................................................................................ 1

1.2 PROJECT DESCRIPTION.................................................................................................... 1

1.2.1 Construction of New 230 kV Double-Circuit Transmission Line............................... 3

1.2.2 Addition of New 230 kV Circuit .................................................................................. 13

1.2.3 Reconductoring of Existing Transmission Line .............................................................. 13

1.2.4 Construction of New Switching Station ...................................................................... 14

1.2.5 Expansion of Existing Switching Station ..................................................................... 15

1.2.6 Project-Wide Mitigation Measures ............................................................................ 15

1.2.7 Construction Work Force and Schedule .................................................................... 15

2.0 REGULATORY FRAMEWORK.......................................................................................... 17

2.1 FEDERAL .......................................................................................................................... 17

2.1.1 Forest Service Manual .............................................................................................. 17

2.1.2 Angeles National Forest Land Management Plan ...................................................... 17

2.1.3 U.S. Department of the Interior, Bureau of Land Management ................................... 21

2.1.4 Federal Aviation Administration, Federal Aviation Regulation Title 14, Part 77 .......... 23

2.1.5 U.S. Department of Defense ...................................................................................... 23

2.1.6 Farmland Protection Policy Act (7 U.S.C. Section 4201) ........................................... 25

2.1.7 Land and Water Conservation Fund Act, 16 U.S.C., Section 460, 1-8 ...................... 26

2.1.8 National Trails System Act of 1968 ........................................................................... 27

2.2 STATE ............................................................................................................................... 27

2.2.1 California Department of Conservation, Division of Land Resource Protection .......... 27

2.2.2 California Land Conservation Act (Williamson Act) .................................................. 28

2.2.3 Farmland Security Zone Act ..................................................................................... 29

2.2.4 California Department of Education School Site Selection and Approval Guide ........ 29

2.2.5 California Military Land Use Compatibility Analysis ............................................... 29

2.2.6 California State Lands Commission .......................................................................... 30

2.2.7 California Department of Parks and Recreation ......................................................... 30

2.3 REGIONAL/LOCAL ......................................................................................................... 31

2.3.1 Southern California Association of Governments ...................................................... 31

2.3.2 Local Land Use Plans ............................................................................................... 31

3.0 PROJECT AREA OVERVIEW.......................................................................................... 42

4.0 INVENTORY METHODS .................................................................................................. 43

5.0 AFFECTED ENVIRONMENT.......................................................................................... 44

5.1 PROJECT AREA SETTING .............................................................................................. 44

5.1.1 Land Jurisdiction ...................................................................................................... 44

5.1.2 Switching Station ...................................................................................................... 45

5.1.3 Land Use and Agricultural Resources ...................................................................... 46

5.1.4 Recreation ................................................................................................................ 52

6.0 IMPACT ASSESSMENT.................................................................................................... 68

6.1 IMPACT METHODS ......................................................................................................... 68

6.1.1 Impact Criteria .......................................................................................................... 68

6.1.2 Impact Levels ............................................................................................................ 70

6.1.3 Significance Criteria ................................................................................................. 70
6.1.4 Impact Types ........................................................................................................... 71
6.1.5 General Practices ................................................................................................. 72

6.2 IMPACT RESULTS COMMON TO ALL SEGMENTS ........................................... 73
6.2.1 Land Use ............................................................................................................ 73
6.2.2 Agricultural Resources ..................................................................................... 84
6.2.3 Recreation ......................................................................................................... 85

6.3 IMPACT RESULTS BY SEGMENT: NEW 230 KV TRANSMISSION LINE .... 92
6.3.1 Segment A ........................................................................................................... 92
6.3.2 Segment B ........................................................................................................... 95
6.3.3 Segment C .......................................................................................................... 99
6.3.4 Segment D ........................................................................................................ 101
6.3.5 Segment E .......................................................................................................... 111
6.3.6 115th Street Modification ................................................................................. 115
6.3.7 Segment F (includes F1 and F2) ....................................................................... 117
6.3.8 Segment G .......................................................................................................... 119
6.3.9 Segment 2a ........................................................................................................ 128
6.3.10 Segment H (includes H1 and H2) .................................................................... 134
6.3.11 Segment I .......................................................................................................... 142

6.4 IMPACT RESULTS: NEW 230 KV CIRCUIT (SEGMENT J) ....................... 147

6.5 IMPACT RESULTS: RECONDUCTORING ..................................................... 148

6.6 IMPACT RESULTS: HASSELL CANYON SWITCHING STATION ............. 150
6.6.1 Land Use and Agricultural Resources ............................................................. 150

6.7 IMPACT RESULTS: EXPANSION OF BARREN RIDGE SWITCHING STATION .... 151
6.7.1 Land Use and Agricultural Resources ............................................................. 151
6.7.2 Recreation ......................................................................................................... 151

7.0 ALTERNATIVES .................................................................................................. 152

7.1 DEVELOPMENT OF ALTERNATIVES ............................................................. 152

7.2 ALTERNATIVES DESCRIPTION ...................................................................... 152
7.2.1 Action Alternatives ............................................................................................. 152
7.2.2 No Action Alternative ........................................................................................ 159

7.3 IMPACT RESULTS—ROUTING ALTERNATIVES ............................................. 159
7.3.1 Alternative 1 (Segments A, C, and D) .............................................................. 159
7.3.2 Alternative 2 (Segments A, B, and G)-LADWP’s Proposed Action .......... 171
7.3.3 Alternative 2a .................................................................................................. 186
7.3.4 Alternative 3 (Segments A, B, F, and I) .......................................................... 194

7.4 NO ACTION ALTERNATIVE ............................................................................. 206
7.4.1 Kern County ....................................................................................................... 206
7.4.2 Los Angeles County .......................................................................................... 207

7.5 CUMULATIVE EFFECTS .................................................................................... 208
7.5.1 Introduction ....................................................................................................... 208
7.5.2 Cumulative Projects List – Major Present and Reasonably Foreseeable Future Actions 209
7.5.3 Land Use ........................................................................................................... 217
7.5.4 Agriculture ........................................................................................................ 224
7.5.5 Recreation ......................................................................................................... 230

8.0 REFERENCES ..................................................................................................... 237
9.0 ACRONYMS AND ABBREVIATIONS.......................................................... 241

TABLES
Table 1-1. Anticipated Construction Sequence ........................................... 16
Table 1-2. Construction Workforce and Schedule ........................................ 16
Table 2-1. Angeles National Forest Suitable Commodity and Commercial Uses ...................................................................................... 18
Table 2-2. Designated Utility Corridors on BLM Public Land within the Study Corridors ................................................................. 22
Table 5-1. Authorized and Pending Land Use Authorizations - BLM .................. 44
Table 5-2. Number of Residences within 1,000 feet of the Segments .......... 49
Table 5-3. Grazing Allotment Information ................................................... 51
Table 5-4. Federal Aviation Administration Registered Air Facilities located within 20,000 feet of a Land Use Study Corridor ................. 51
Table 5-5. USDA Forest Service Recreation Opportunity Spectrum (2005) .... 54
Table 5-6. Angeles National Forest Roadway Operational Maintenance Level Guidelines ........................................................................ 58
Table 6-1. Land Use Sensitivity Levels ....................................................... 69
Table 6-2. General Practices........................................................................ 72
Table 6-3. Plans Applicable by Segment..................................................... 74
Table 6-4. Consistency with Applicable Land Use Plans and Policies ............. 76
Table 6-5. National Forest System Roads Potentially Utilized by Project ....... 91
Table 7-1. Recreation Impacts Applicable to Developed Recreation Resources – Alternative 1 ...... 166
Table 7-2. Recreation Impacts Applicable to Developed Recreation Resources – Alternative 2 ...... 179
Table 7-3. Recreation Impacts Applicable to Developed Recreation Resources – Alternative 2a..... 190
Table 7-4. Recreation Impacts Applicable to Developed Recreation Resources – Alternative 3 ...... 201
Table 7-5. Proposed Generation Projects in the Project Vicinity .................... 213
Table 7-6. BLM Ridgecrest Office Applications for Wind and Solar Energy Generation Projects in the Project Vicinity ............................................. 214
Table 7-7. Proposed Local Projects in the Project vicinity ............................ 217

FIGURES
Figure 1-1. LADWP’s Proposed Action Components ....................................... 2
Figure 1-2. Types of Towers ....................................................................... 3
Figure 1-3. Four-Circuit Towers To be Utilized ........................................... 5
Figure 1-4. Typical Tower Components....................................................... 6
Figure 1-5. Preliminary Routing Segments .................................................... 8
Figure 1-6. Three-Circuit Tower Types ....................................................... 10
Figure 1-7. Three-Circuit Tower Mitigation ............................................... 11
Figure 7-1. Action Alternatives ................................................................. 153
Figure 7-2. Identified Helicopter Mitigation Locations ............................... 155
Figure 7-3. Avenue L Re-route on Alternative 3 .......................................... 158
Figure 7-4. Cumulative Projects ................................................................. 210

APPENDICES
Appendix A: Land Use Tables
Appendix B: Land Use Maps
Appendix C: Detailed Construction, Operation and Maintenance Process
1.0 INTRODUCTION

The City of Los Angeles Department of Water and Power (LADWP) is proposing the Barren Ridge Renewable Transmission Project (BRRTP or Project) to access clean, renewable resources in the Tehachapi Mountains and Mojave Desert areas, and to improve reliability and upgrade transmission capacity.

LADWP, the US Department of Agriculture, Forest Service (USFS or Forest Service) and the U.S Department of the Interior, Bureau of Land Management (BLM) are preparing a joint Environmental Impact Statement (EIS) / Environmental Impact Report (EIR) for the proposed BRRTP. LADWP is the California Environmental Quality Act (CEQA) Lead Agency, while the USFS and BLM are the federal Co-Lead Agencies under the National Environmental Policy Act (NEPA). An EIS/EIR is an informational disclosure document used to inform agency decision makers and the public of the potential significant environmental effects of a project, identify possible ways to eliminate or minimize the potential significant effects, and describe reasonable alternatives to the Proposed Action /Project.

The purpose of the land use study is to inventory land uses and to assess the potential land use impacts of each of the proposed transmission line alternative corridors (segments) and proposed switching station. The land use environmental analysis will: 1) present the regulatory framework, 2) provide an overview of the technical methodology used in collecting baseline conditions and evaluating impacts, 3) examine the affected environment within the study corridors and vicinity, where appropriate, 4) describe the potential impacts on land use from construction and operation of the project, 5) evaluate the level of potential impacts based upon NEPA/CEQA criteria; and 6) present specifically recommended mitigation measures, if needed, to reduce potential impacts.

1.1 STUDY PERSONNEL

POWER Engineers, Inc. personnel who prepared the land use technical report included Mark Schaffer, M.S., a land use planner with over 29 years of professional experience and Roya Compani-Tabrizi, B.S., an environmental planner with 4 years of experience. Mr. Schaffer has managed or participated in approximately 45 land use studies related to transmission line siting while Ms. Compani-Tabrizi has worked on several land use studies.

1.2 PROJECT DESCRIPTION

The BRRTP BRRTP would be located in Kern and Los Angeles counties. As proposed by LADWP, it would be approximately 76 miles in length extending from the Barren Ridge Switching Station to Rinaldi Substation, and extending approximately 12 miles from the Castaic Power Plant to the proposed Haskell Canyon Switching Station. As shown in Figure 1-1, the proposed BRRTP would include the following:

1) Construction of approximately 61 miles of a new 230 kilovolt (kV) double-circuit transmission line from the LADWP Barren Ridge Switching Station to Haskell Canyon;
2) Addition of approximately 12 miles of a new 230 kV circuit on the existing double-circuit structures from Haskell Canyon to the Castaic Power Plant;
3) Reconductoring of approximately 76 miles of the existing Barren Ridge-Rinaldi (BR-RIN) 230 kV transmission line with larger capacity conductors between the Barren Ridge Switching Station and the Rinaldi Substation;
4) Construction of a new switching station in Haskell Canyon;
5) Expansion of the existing Barren Ridge Switching Station.
FIGURE 1-1. LADWP’S PROPOSED ACTION COMPONENTS

Proposed Action Components

- New 230kV Transmission Line
- New 230 kV Circuit
- Reconductoring of Existing 230 kV Transmission Line (Barren Ridge - Rinaldi)
- Expansion of Existing Switching Station
- New Switching Station

BARREN RIDGE RENEWABLE TRANSMISSION PROJECT
1.2.1 Construction of New 230 kV Double-Circuit Transmission Line

The proposed double-circuit 230 kV transmission line component of the BRRTP would consist of two alternating current (AC) circuits from the Barren Ridge Switching Station to the proposed Haskell Canyon Switching Station in Haskell Canyon.

The proposed structures for the new transmission line would primarily be self-supporting double-circuit steel lattice towers fabricated from galvanized steel members, as shown on the left side of Figure 1-2. Depending on the environmental conditions of the surrounding terrain, the height of the proposed lattice structures would range from 110 to 195 feet, with an average tower-to-tower span of 1,000 to 1,100 feet. Appendix C lists the structure specifications for the number of structures per mile, average span length, and average heights for towers and components. Exact structure placement would be determined during engineering surveys and detailed design studies for the selected Alternative route following the Record of Decision (ROD) on the EIS/EIR. A variety of engineering, constructability, existing access, and environmental issues would be considered during detailed structure siting within the permitted ROW.

“Dead-end” towers of self-supporting, steel-lattice design would be required periodically to add longitudinal strength along the line. Dead-end towers would also be used at turn (angle) locations along the line, at heavily loaded tower locations, and at specific utility crossings (e.g., other transmission lines) for added safety. Dead-ended towers are of the same basic configuration as suspension towers (non-angle structures), the difference being in the tower “arms,” insulator systems, and tower weights.

**Figure 1-2. Types of Towers**

Self-supporting, tubular steel poles (TSP) have been proposed by LADWP as an available mitigation structure where appropriate to reduce potential impacts, such as conflicts with cultivation on agricultural lands. The TSPs can reduce impacts in some cases due to a smaller footprint than the proposed self-supporting steel lattice structures; however, more TSPs per mile are necessary due to a shorter average span between structures. The TSPs would have an average height range between 95 and 180 feet, depending on the conditions of the surrounding terrain, with an average tower-to-tower span of 700 to 800 feet. Refer to Figure 1-2 for an illustration of the double-circuit poles.
For the majority of the alignment, the two new 230 kV circuits would be placed on new double-circuit transmission towers, but for approximately 1.5 miles, the circuits would be placed on existing four-circuit structures that are located just north of the proposed Haskell Canyon Switching Station. Between where the existing BR-RIN crosses Dry Canyon to the intersection of the Castaic transmission lines, LADWP has existing four-circuit towers with three vacant positions. The existing towers would be utilized in this section for the proposed 230 kV double circuit transmission line instead of constructing new towers. See Figure 1-3 for the location and illustration of the existing four-circuit towers to be utilized.
FIGURE 1-3. FOUR-CIRCUIT TOWERS TO BE UTILIZED
The self-supporting steel lattice structures and TSPs would utilize concrete foundations. Steel lattice structures would require four footings (one for each leg); TSPs would require single footings. Footings would be steel-reinforced concrete pier type and be cast in place. The typical design for the concrete footings for lattice structures would be between 2.5 and 5.0 feet in diameter, with an average depth of 20 feet depending on soil conditions. Typical design for single foundations for TSPs would include augured holes approximately five to seven feet in diameter and 15 to 30 feet deep, depending on conditions. Formwork steel reinforcing would be assembled in the hole prior to casting concrete in place. Reinforcing steel would become integral to the lower leg of the steel lattice structure during assembly. An above-ground concrete form placed over each hole would result in a final concrete foundation height of 0.5 to 2.0 feet above ground level.

As illustrated in Figure 1–4, Typical Tower Components, each tower carries conductors (“wires”), insulators, and ground wires. The conductor being considered for the new double-circuit 230 kV transmission line and installation of the Castaic – Haskell Canyon #4 circuit on existing structures is a bundled 715.5 kcmil “Starling” ACSS/AW. The reconductoring of the BR-RIN transmission line between Barren Ridge Switching Station and Rinaldi Substation would require a bundled 1,433.6 kcmil “Merrimack” ACSS/TW/HS conductor.

FIGURE 1-4. TYPICAL TOWER COMPONENTS

Each circuit would consist of three phases (“wires”) as illustrated in Figure 1–4. To increase the current-carrying capability of the transmission lines and reduce power loss, the Proposed Action (Alternative 2) would utilize bundled conductors installed for each phase. The bundled conductors would consist of two conductor cables connected by a spacer. The new 230 kV double-circuit transmission line would consist of a total of six double-bundled (12 individual) wires.

Minimum conductor height above the ground, under normal operation of the line, is 30 feet. Greater clearances may be required in certain areas to allow for clearances over trees or other vegetation that
could pose a risk to the operation of the transmission line. Minimum conductor clearance would dictate
the exact height of each tower based on topography and safety clearance requirements.

Insulators are used to provide the physical connection of conductors to structures. These system
components are made of very low conducting materials (polymer insulators) that inhibit the flow of
electric current from energized conductors to ground or to other energized system elements. Insulators
and their associated hardware are to be configured in an “I” assembly to support conductors while
maintaining required distances between phases and grounded structures. Each “I” string would consist of
six-inch diameter insulators between six and eight feet long.

To shield conductors from hazard of direct lightning strikes by transferring lightning currents into the
ground, overhead ground wires (shield wires) or fiber optic ground wire would be installed on top of new
structures.

Construction of a transmission line involves the following general sequence of events: surveying
activities; identifying and constructing access roads; clearing ROW and tower sites (including
construction yards and batch plants); installing foundations; assembling and installing the towers;
clearing, pulling, tensioning, and splicing; installing ground wires and conductors; installing
counterpoise; switching station tie-in; and site upkeep and site reclamation. Various phases of
construction would occur at different locations throughout the construction process for the BRRTP. This
would require several contractors operating at the same time and in different locations. Refer to Appendix
C for a description of each construction activity.

Existing paved and unpaved highways and roads would be used where possible. Roads along existing
utility corridors would also be used where possible to minimize new access road construction. In locations
where existing roads could be used, that are located in close proximity to the proposed or existing ROW
centerlines, only new spur roads to the tower sites would be constructed. The specific locations and
design of all new access and spur roads would be determined during final Project design.

It is anticipated that one or two construction yards or staging areas would be required for materials
storage, construction equipment, construction vehicles, and temporary construction offices. Staging areas
would be approximately five acres in size, and located centrally or near each end of the transmission line
route. The staging areas would likely be located on previously disturbed land and would be level and
surfaced with crushed aggregate base. The LADWP would negotiate with landowners for specific
locations of the staging areas.

Routing

In 2007, a siting analysis was conducted to identify appropriate sites for a new 230 kV transmission line.
Over 200 miles of routing opportunities were identified and referred to as Segments A through I (see
Figure 1-5). These segments were then combined to create end-to-end routing “alternatives” as discussed
in Section 7.2. All routing Segments were identified assuming the need for a 200-foot ROW for the new
230 kV transmission line and the use of conventional transmission line construction. However, as
discussed in Section 7.2, the end-to-end alternatives have included specific mitigation measures to reduce
certain impacts. These mitigation measures would eliminate the need for new ROW in some locations and
would require the use of helicopters for tower assembly in designated areas on the ANF. Also, to the
maximum extent possible, all existing access and spur roads would be utilized for the construction,
operation, and maintenance of the BRRTP. Below is a brief description of each segment.
FIGURE 1-5. PRELIMINARY ROUTING SEGMENTS
Segment A is 13 miles long and runs from LADWP’s Barren Ridge Switching Station to the unincorporated community of Mojave, California. It would traverse four miles of BLM managed public lands and parallel LADWP’s existing 230 kV Barren Ridge – Rinaldi Transmission Line (BR-RIN) and the 500 kV Pacific Direct Current Intertie (PDCI). It traverses four miles of BLM-managed lands.

Segment B is 27 miles long and starts just north of the unincorporated community of Mojave, California and travels south to a point one mile east of the Antelope Valley California Poppy Reserve. This segment parallels LADWP’s existing 230 kV BR-RIN and 500 kV PDCI transmission lines for its entire length.

Segment C is 22 miles long and begins at the location as Segment B, north of the unincorporated community of Mojave, California. Segment C parallels the Los Angeles Aqueduct in a southwest direction to Cottonwood Creek. No existing transmission lines are located within the aqueduct corridor; however, Southern California Edison’s (SCE’s) Tehachapi Renewable Transmission Project’s (TRTP) Alternative 10A is also proposed along the same corridor.

Segment D is 48 miles long and would traverse 16 miles of National Forest System (NFS) lands. This segment generally parallels the Los Angeles Aqueduct in a southwest direction, beginning near Cottonwood Creek and traveling to Lancaster Road. It then travels west to the Interstate 5 freeway utility corridor and continues southeast along LADWP’s existing Castaic – Rinaldi corridor to the proposed Haskell Canyon Switching Station. Five high voltage transmission lines are located along the Interstate 5 section of the segment. Oil and gas pipelines are also located in the same I-5 corridor. Continuing further south near Castaic Power Plant, Segment D would be located to the south of two existing LADWP double-circuit 230 kV transmission line towers until reaching the proposed Haskell Canyon Switching Station.

Segment E is 11 miles long and begins near Cottonwood Creek at the intersection of Segments C and D. Segment E travels in a southeast direction and intersects Segment B one mile east of the Antelope Valley California Poppy Reserve. Three existing high voltage transmission lines (Midway-Vincent 500 kV, Antelope-Vincent 230 kV, and Antelope-Mesa 230 kV) are located within the corridor that Segment E would parallel. SCE’s proposed TRTP Segment 4 is also proposed adjacent this same corridor.

Segment F is the shortest segment, at four miles in length, and begins at the intersection of Segments B and E one mile east of the Antelope Valley California Poppy Reserve. Three existing high voltage transmission lines (Midway-Vincent 500 kV, Antelope-Vincent 230 kV, and Antelope-Mesa 230 kV) are also located parallel to this segment.

The 115th Street Segment was proposed as a modification to avoid impacts to residents in the Antelope Valley near Segments F and H, described below. It begins mid-way within Segment F near SCE’s Antelope Substation and parallels 115th Street south to the California Aqueduct. No existing transmission lines occur within this corridor; however, TRTP’s proposed Segment 4 would be located along this alignment. This segment would split Segments F and H as shown in Figure 1-5 creating these Segments into F1, F2, H1 and H2.

Segment G is 21 miles long. Thirteen miles traverse National Forest System (NFS) lands. It travels south from the intersection of Segments B and F one mile east of the Antelope Valley California Poppy Reserve to the proposed Haskell Canyon Switching Station, located near the southern boundary of the ANF. It is a designated utility corridor containing LADWP’s existing 230 kV BR-RIN and 500 kV PDCI lines. The BRRTTP proposes to use its existing four-circuit structures for two miles, from towers 234-3 to 236-2 (see Figure 1-3).

Segment 2a is seven miles long. It would bypass the unincorporated community of Green Valley and follow an existing fire road through ANF. Segment 2a would not parallel existing transmission facilities, and a new utility corridor would be required.
Segment H is 20 miles long and would parallel SCE’s Antelope-Pardee line. It starts near SCE’s Antelope Substation at the intersection of Segments F and I and traverses 13 miles of NFS lands to the proposed Haskell Canyon Switching Station. As requested by the USFS, all portions of this segment that fall within the northern and southern borders of the ANF would be constructed entirely by the use of helicopters. The helicopter construction requirement was established by the USFS for consistency of transmission line construction within the existing Antelope-Pardee transmission line corridor. No new access roads would be constructed except those required for pulling and tensioning sites or staging locations for construction materials. The addition of the 115th Street Segment, described above, splits the Segment into H1 (northern portion) and H2 (southern portion).

Segment I is 32 miles long. It begins near the Antelope Substation at the intersection of Segments F and H, and heads southeast through the City of Palmdale, parallel SCE’s existing high voltage transmission lines (Midway-Vincent 500 kV, Antelope-Vincent 230 kV, and Antelope-Mesa 230 kV). The segment continues directly south to an existing LADWP transmission line corridor, then continues in a southeast direction to the proposed Haskell Canyon Switching Station, parallel LADWP’s existing high voltage transmission lines (Victorville-Rinaldi 500 kV and Adelanto-Rinaldi 230 kV). A majority of this segment would be located outside of NFS lands. Two miles would be located on NFS lands.

Segment J is located parallel to the southern portion of Segment D. Segment J would consist of a new single 230 kV circuit to be placed on existing double-circuit towers between Castaic Power Plant and the proposed Haskell Canyon Switching Station (see discussion in Section 1.2.2 below).

Three-Circuit Tower Mitigation

In areas where there are ROW expansion constraints and where LADWP has existing 230 kV transmission lines, LADWP is proposing to construct three-circuit towers within the existing ROW to carry the existing BR-RIN circuit and the two proposed Barren Ridge to Haskell Canyon (BR-HC) circuits. This would avoid various impacts, including the acquisition of residential property in the unincorporated communities of Willow Springs (milepost 27.1 to 27.6) and Elizabeth Lake and Green Valley (milepost 44.6 to 51.7). Refer to Figure 1-6 for an illustration of three-circuit tower types, and to Figure 1-7, the Three-Circuit Tower Mitigation Map, for proposed locations.
FIGURE 1-7. THREE-CIRCUIT TOWER MITIGATION
LADWP must maintain the electrical service along the existing BR-RIN transmission line to avoid impacts to the hydroelectric power plants north of the Barren Ridge Switching Station. Therefore, a temporary transmission line would be constructed to keep the BR-RIN circuit energized during construction of the three-circuit towers. After the temporary line is constructed, the existing BR-RIN single-circuit towers would be removed to allow the new three-circuit towers to be constructed within the existing ROW. Once construction of the three-circuit towers is completed, the temporary transmission line would be removed. The temporary transmission line is expected to be in place from six to nine months.

The temporary transmission line would be 7.5 miles long and would consist of wood and steel single poles with an average height of 95 feet, a 3-foot by 3-foot footprint, and an average of eight poles per mile. Construction would occur within a new temporary 80- to 100-foot ROW. The majority of the temporary transmission line would be constructed along San Francisquito Road. Portions would also be constructed along Elizabeth Lake Road and Johnson Road. Pole placement would be adjacent to public roadways wherever possible. If necessary, temporary ROW on private property would be needed where poles could not be placed within public road ROW. The majority of poles would be direct-embedded when set in place and would not require a permanent foundation. Where additional strength is necessary at larger angle points, steel poles would be required, which could require an excavation approximately 6 feet in diameter by 20 feet deep to accommodate the concrete pier foundation that would be cast in place. Once all the poles have been constructed and the conductor installed, the existing BR-RIN circuit would be connected into the temporary line and energized. The construction would require establishment of a staging area, work areas around poles, and pull and tension sites. Access to pole sites and pull and tension sites would be from the adjacent roadways.

Approximately seven miles of the existing BR-RIN single-circuit towers would be removed, with existing ROW utilized to access the existing towers. The new three-circuit towers would be placed within the existing ROW, utilizing existing access roads. Helicopter Mitigation, as described in this section below, would be applied in steeper terrain if additional access is required. The new three-circuit tower would require a 25-foot by 30-foot structure footprint and an average of seven structures per mile; the average structure height would be 170 feet, with a maximum tower-to-tower span length of 780 feet. The construction process for the new three-circuit towers would be the same as the double-circuit towers discussed above. After completion of construction of the three-circuit towers, the temporary transmission line would be removed and all temporary staging and work area land disturbances would be restored as close to previous conditions as possible and revegetated as required.

**Helicopter Mitigation**

Within the ANF where the terrain is steep and access is limited, the USFS would require that the new double-circuit 230 kV structures be constructed with the use of helicopters (such as the Hughes 500 or Bell 212, or Sikorsky Skycrane). Although no specific locations for this mitigation have been identified for the Proposed Action, as defined, it is expected USFS would require the helicopter mitigation for construction in any area more than 300 feet from an existing road and with slopes greater than approximately 25 percent. The use of helicopters for the construction of transmission tower structures would eliminate the need for new access roads to structure locations, and would therefore minimize land disturbance associated with crane pads, structure laydown areas, and the trucks and tractors used for delivery of structures to sites. However, the following site and ground disturbing construction activities would be required to construct the new transmission line within the identified helicopter construction areas: portable landing pads, helicopter fly yards/staging areas and associated access roads, tower structure vegetation clearing, guard structures at major crossings, and access road pullouts.

Temporary 24-foot wide access roads would be required to access the helicopter fly yards/staging areas. The transmission line materials (tower steel, conductor reels, structure hardware, etc.) would be delivered by truck to the helicopter fly yards/staging areas. Vegetation clearing may be required at these sites to ensure safe working conditions. The fly yards/staging areas would serve as helicopter support yards for
fueling and maintenance, as well as for the transport of materials and personnel. Towers may also be assembled in sections at these yards prior to delivery to the tower sites. Heavy lift helicopters would then fly the towers from the yards to the tower sites.

Portable landing pads would be located at each tower site. These pads would allow helicopters to load and unload personnel, tools, and equipment necessary for construction of foundations and assembly of tower structures. Helicopter-constructed towers that would not be in close proximity to existing access roads would utilize micropile foundations. For each tower leg, micropile foundations would use a group of three to eight 6- to 9-inch diameter casings that would be drilled and grouted into the ground. The exposed portion of the pile group would be encased in a reinforced concrete cap from the top of the casings to a depth anywhere from one to eight feet below the ground surface, depending on the terrain.

Conductor installation would proceed in the same manner as the double-circuit tower installation. The equipment necessary for conductor installation would be large, heavy construction equipment that could only be brought in by truck. Some NFS roads could need maintenance or improvement to allow pulling and tensioning, but no new access or spur roads would be created for conductor installation on the helicopter-constructed towers. After Project completion, any maintained access roads to helicopter fly yards/staging areas to would be reduced to 16 feet.

1.2.2 Addition of New 230 kV Circuit

Between the proposed Haskell Canyon Switching Station and the existing Castaic Power Plant, LADWP proposes the addition of 12 miles of a new 230 kV transmission circuit onto existing Castaic – Olive 230 kV Transmission Line structures. The circuit would cross the unincorporated communities of Castaic and Saugus and the city of Santa Clarita. A total of 300 feet of BLM-managed public lands and four miles of NFS lands would be traversed; however, the new circuit would not require a new or additional ROW. This new circuit would be called Castaic – Haskell Canyon #4 and would utilize the same conductor (bundled 715.5 kcmil “Starling” ACSS/AW [aluminum conductor steel supported/aluminum-clad steel wire]) as that proposed for the new 230 kV transmission line between Barren Ridge and Haskell Canyon Switching Stations.

The addition of a new circuit on existing towers would require many of the same construction activities associated with a new transmission line (refer to Appendix C for a description of each construction activity). However, all work would be within existing ROW and no new towers would be constructed. Some towers may need to be modified or reinforced to carry the additional weight of the new conductor. Specific towers requiring reinforcement would be determined following detailed design of the Project. Tower reinforcement would not alter the general design or the location of the structures. This process would generally include reinforced foundations or steel member replacements. Refer to Figure 1-1 for a map showing the location of the new 230 kV circuit.

1.2.3 Reconductoring of Existing Transmission Line

LADWP proposes the reconductoring of 76 miles of the existing BR-RIN 230 kV transmission line with larger conductors from the Barren Ridge Switching Station to Rinaldi Substation. Four miles of BLM-managed public lands, 13 miles of National Forest System (NFS) lands, and 44 miles of private property would be traversed. The existing conductors (954/ 2,312 kcmil) would be replaced with a new 1,433.6 kcmil “Merrimack” ACSS/TW/HS (aluminum conductor steel supported/trapezoidal wires/high strength) conductor. The new conductor would have a larger diameter that allows for greater electrical capacity.

The upgrade of the existing BR-RIN would also require many of the same activities of the new transmission line (surveying of right-of-way [ROW], rehabilitation of existing access and spur roads, clearing of ROW, conductor installation, and cleanup). Removal of the existing conductor would be used to string a pulling line, and this line would then be used to pull in the new conductor. All work would remain within the existing 250-foot-wide ROW, with no additional ROW required. Some of the towers
would need to be modified, replaced, and/or have foundations reinforced or replaced to carry the additional weight of the new heavier conductor. Refer to Figure 1-1 for the location of the reconductoring.

1.2.4 **Construction of New Switching Station**

As a component of the BRRTP, LADWP proposes the construction of a new switching station in Haskell Canyon, south of the Angeles National Forest on LADWP-owned property at the convergence of several existing and proposed 230 kV transmission lines (the existing BR-RIN, the proposed double-circuit Barren Ridge – Haskell Canyon, existing Castaic – Northridge, Castaic – Sylmar, Castaic – Olive, and the proposed Castaic – Haskell Canyon). Refer to Figure 1-1 for the location of the new switching station.

The station would be approximately 500 feet by 600 feet to accommodate the necessary circuit positions, which are made up of equipment, such as steel support structures, circuit breakers, disconnect switches, and associated equipment, and a relay house and control house containing control and protective relaying equipment. The relay and control houses would each be approximately 30 feet long by 12 feet wide by 10 feet high and constructed of gray concrete block. The station yard would include a paved internal access road approximately 16 feet wide and would be enclosed by chain-link fencing with barbed-wire extension for security. The preliminary grading plan for the station is located in Appendix C.

Necessary pre-construction geotechnical investigation on-site would include six borings by a drill rig to investigate bedrock and soil stability and four cone penetration test locations after site grading to determine friction resistance for piers. The cone penetration test rig would be a small truck with a hydraulic ram assembly mounted on the back, which is used to push a 2.5-inch diameter cone into the ground to a depth up to 50 feet. Existing roads would be used to access the site.

Construction of the new Haskell Canyon Switching Station would consist of preconstruction surveys, clearing and grading of access roads, site grading and drainage development, installation of concrete foundations and steel support structures, installation of below- and above-ground electrical conduits for equipment power and control, installation of below- and above-grade grounding conductors, and installation of control and relay houses. Equipment required for station construction would include graders and excavators, backhoes, drill rigs, water trucks, scrapers, sheep’s foot compactors, front end loaders, concrete trucks, trucks, and flatbed trailers. Cranes, man-lifts, portable welding units, line trucks, and mechanic trucks would also be required. Construction would require an estimated 12 months with approximately 60 workers.

Site preparation work for the station would involve clearing and grading of access roads, clearing of the switchyard site, the cut and fill grading of the site, and placement and compaction of structural fill that would serve as a base for switching station facilities. The site would be graded to maintain current drainage patterns as much as possible. A 16-foot-wide paved road and a 100-foot by 100-foot gravel parking area would be required. The yard would be covered with crushed-rock aggregate. Native vegetation would be re-established where possible outside the switchyard fence.

Following site grading and development, reinforced concrete foundations would be installed to support the steel structures and electrical equipment and control facilities. It is estimated that 1,500 cubic yards of concrete would need to be delivered to the switching station site for the foundations. Foundation work would require approximately 180 trips to the site by 40-ton, 10-yard capacity concrete trucks over a 120-day working period. Subsequent to the foundation installation, trenches would be dug to facilitate placement of copper conductors for the station grounding mat.

Multiple transmission lines would be terminated into the switching station (i.e., the new and existing Barren Ridge – Haskell and Castaic – Haskell Canyon transmission lines) and would need support and require the installation of galvanized steel structures. An existing 115 kV transmission line may need to be relocated around the proposed station. High-voltage bus work consisting of aluminum jumpers and tubing would be installed within the station.
1.2.5 Expansion of Existing Switching Station

LADWP proposes expansion of the existing Barren Ridge Switching Station to the east side by 235 feet by 500 feet, for a total station size of 485 feet by 500 feet (approximately 5.6 acres). The expansion area of the station would include electrical structures and equipment for the addition of transmission lines, a material staging area, roadway within the station, and a drainage area. The preliminary design layout for the station may be found in Appendix C. Refer to Figure 1-1 for the location of the existing switching station.

Expansion of the existing switching station would be very similar to the construction of the Haskell Canyon Switching Station as described above. Expansion would consist of preconstruction surveys, site preparation and grading, installation of reinforced concrete foundations, installation of electrical conduits for equipment power and control, and installation of structures and equipment.

Necessary pre-construction geotechnical on-site investigation would include two test pits excavated by a backhoe to investigate soil density and settlement, and four cone penetration test locations on-site to determine friction resistance for piers. The cone penetration test rig would be a small truck with a hydraulic ram assembly mounted on the back, which is used to push a 2.5-inch diameter cone into the ground to a depth up to 50 feet. Existing roads would be used to access the site.

It is estimated that 700 cubic yards of concrete would need to be delivered to the switching station site for the foundations. Foundation work would require approximately 80 trips to the site by 40-ton, 10-yard capacity concrete trucks over a 90-day working period. Equipment required for station construction would include graders and excavators, backhoes, drill rigs, water trucks, scrapers, sheep’s foot compactors, front end loaders, concrete trucks, trucks, and flatbed trailers. Cranes, man-lifts, portable-welding units, line trucks, and mechanic trucks would also be required. An estimated eight months with approximately 60 workers would be required to expand the station.

1.2.6 Project-Wide Mitigation Measures

To address potential impacts of the Proposed Project to multiple resource areas as discussed above, the following project-wide mitigation measure would be applied:

Three-Circuit Tower Mitigation (THREE-CIRCUIT) – A three-circuit lattice tower design would be implemented as described in Section 1.2.1 of this Technical Report, at the locations shown in Figure 1-7, Three-Circuit Tower Mitigation Map.

Helicopter Mitigation (HELICOPTER) – Helicopter Mitigation shall be implemented, as described in Section 1.2.1 of this Technical Report, in steep areas of the Angeles National Forest where access is limited. For Alternatives 1 and 2a, implementation would occur at the locations shown on Figure 7-2, Identified Helicopter Mitigation Map. During final design of the Project, areas other than those shown on Figure 7-2, including Alternatives 2 and 3, may potentially require helicopter construction of the towers. This determination would generally be made where tower sites have no existing access roads within 300 feet and slopes are greater than 25 percent. Final identification of these tower sites would be determined and agreed upon by USFS, BLM and LADWP.

1.2.7 Construction Work Force and Schedule

The NEPA Record of Decision and CEQA Notice of Determination (anticipated in the early part of 2012) must be made before construction could begin. Therefore, construction of the BRRTP is anticipated to begin no sooner than summer 2012, with a target in-service date of early 2015. These dates are subject to change based on actual completion of design.
The following construction estimates were based on preliminary engineering and the number of workers and construction duration values are estimates; therefore, they are subject to change based on final engineering and design. The new double-circuit 230 kV transmission line from the Barren Ridge Switching Station to the proposed Haskell Canyon Switching Station would require 12.5 months and 134 workers. The installation of a 230 kV circuit on existing double-circuit towers from the Castaic Power Plant to the proposed Haskell Canyon Switching Station would require a month and a half and 35 workers. The upgrade and reconductoring of the existing BR-RIN would require eight months and 155 workers. The construction of a new 400-foot by 600-foot Haskell Canyon Switching Station would require 12 months and 60 workers. The expansion of the existing Barren Ridge Switching Station would require eight months and 60 workers.

The BRRTTP components are anticipated to be constructed in the staggered sequence illustrated below in Tables 1-1 and 1-2. The construction of all Project components would take approximately two years and 447 total workers, with 173 workers at the peak of construction. Table 1-2 summarizes the BRRTTP’s anticipated construction workforce and schedule based on the most current information available. To allow for any delays in the Project, three weeks of float time were included for the new 230 kV transmission line and reconductoring efforts, and an additional two weeks of float time were included for the stringing of the second circuit between Castaic Power Plant and Haskell Canyon.

**Table 1-1. Anticipated Construction Sequence**

<table>
<thead>
<tr>
<th>PROJECT COMPONENT</th>
<th>ANTICIPATED CONSTRUCTION SEQUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion of Barren Ridge Switching Station</td>
<td>Weeks 8 – 73</td>
</tr>
<tr>
<td>New Haskell Canyon Switching Station</td>
<td>Weeks 1 – 67</td>
</tr>
<tr>
<td>New 230 kV Transmission Line</td>
<td>Weeks 42 – 113</td>
</tr>
<tr>
<td>Reconductor BR-RIN</td>
<td>Weeks 55 – 88</td>
</tr>
<tr>
<td>Addition of 230 kV Circuit</td>
<td>Weeks 51 – 56</td>
</tr>
</tbody>
</table>

**Table 1-2. Construction Workforce and Schedule**

<table>
<thead>
<tr>
<th>PROJECT COMPONENT</th>
<th>CONSTRUCTION (START AND END WEEKS)</th>
<th>CONSTRUCTION DURATION (MONTHS)</th>
<th>TOTAL # OF WORKERS</th>
<th>PEAK # OF WORKERS AT ANY GIVEN TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion of Barren Ridge Switching Station</td>
<td>8 – 73</td>
<td>15</td>
<td>60</td>
<td>38</td>
</tr>
<tr>
<td>New Haskell Canyon Switching Station</td>
<td>1 – 67</td>
<td>15.4</td>
<td>63</td>
<td>38</td>
</tr>
<tr>
<td>New 230 kV Transmission Line</td>
<td>42 – 113</td>
<td>16.5</td>
<td>134</td>
<td>131</td>
</tr>
<tr>
<td>Reconductor BR-RIN</td>
<td>55 -88</td>
<td>9</td>
<td>155</td>
<td>120</td>
</tr>
<tr>
<td>Addition of 230 kV Circuit</td>
<td>51 – 56</td>
<td>1.5</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td><strong>ALL COMPONENTS</strong></td>
<td><strong>Weeks 1 – 113</strong></td>
<td><strong>26.1 months</strong></td>
<td><strong>447 Total Workers</strong></td>
<td><em><em>173</em> Peak Workers</em>*</td>
</tr>
</tbody>
</table>

*The value represents the total for the staggered construction of the Project components; it is not reflective of the sum of all the components.
2.0 REGULATORY FRAMEWORK

This section presents a general discussion of the regulations, plans, and standards applicable to the BRRTP, by jurisdiction.

2.1 FEDERAL

2.1.1 Forest Service Manual

The Forest Service Manual Section 2700 (Special Uses Management) provides direction for the administration of special-use authorizations (SUAs) on NFS lands (Forest Service, 1997). As described in Section 2703.2, the Forest Service is instructed to deny a written request for the use of NFS lands according to the following criteria:

- The proposal is inconsistent with Forest land and resource management plans;
- The proposal is in conflict with other Forest management objectives, or applicable federal statutes and regulations; or
- The proposal can be reasonably accommodated on non-NFS lands provided, however, that First Amendment group uses (freedom of assembly and worship) may not be denied on this basis.

The Forest Service may not authorize the use of NFS lands just because it affords the applicant a lower cost and less restrictive location when compared with non-NFS lands (Forest Service, 1997).

However, additional guidance regarding the management of special uses, such as transmission lines across NFS lands, has been provided in the Forest Service Manual Region 5 Supplement No. 2700-92-8 (Forest Service, 1992). As stated in Section 2726.43 of the supplement, the objectives for the management of transmission lines include the following:

- To eliminate or mitigate long-term conflicts between power lines and the management of NFS lands and resources; and
- To eliminate identified fire and safety hazards.

According to the direction provided in Section 2726.43 for the construction of transmission lines over 35 kV, aerial construction of transmission line structures (as opposed to underground construction) may be authorized, except in those areas where the environmental analysis clearly indicates unacceptable effects on NFS resource and environmental values (Forest Service, 1992). This supplement recognizes that construction costs and operational problems increase substantially for underground construction of transmission lines over 35 kV, and states that the authorizing officer would consider undergrounding only after a thorough assessment of the situation.

2.1.2 Angeles National Forest Land Management Plan

The National Forest Management Act of 1976 (NFMA) required the USFS to develop and implement plans for the efficient and sustainable use of the many resources found on NFS lands, and required that these plans be developed through an open public process. NFMA does not allow the USFS to approve projects or activities that are not consistent with the Land Management Plan (LMP). Where projects are found to be inconsistent with LMP standards and direction, the USFS must reject the project, modify the project to make it consistent with the LMP, or make an amendment to the LMP contemporaneously with the project or activity decision. Amendments to the LMP that do not significantly alter the multiple-use goals and objectives for long-term land and resource management are considered “non-significant” amendments (Forest Service Manual 1926.51). The BRRTP is expected to require several of these non-significant plan amendments. See Section 6.2.1 for more detail.

The current land and resources management plan for the ANF is contained in the following documents: (1) “Land Management Plan – Part I Southern California National Forests Visions: Angeles National Forest, Cleveland National Forest, Los Padres National Forest, San Bernardino National Forest”; (2)

The Forest Plan consists of three parts that examine vision, strategy, and design criteria for the ANF. Part 1 of the Forest Plan provides a “vision” of the ANF as serving as an open space, visual backdrop, recreation destination, and natural environment for a diverse urban population. Part 1 additionally includes a discussion of forest goals and desired conditions for resources, which are linked to the Forest Service National Strategic Plan. The following is a list of goals that pertain to the development of the proposed Project across NFS lands.

**National Strategic Plan Goal 4 – Help meet energy resource needs.** Consider opportunities for energy development and the supporting infrastructure on forests and grasslands to help meet the nation’s energy needs:

- Work with other agencies to identify and designate corridors for energy facilities, improve permit application processing efficiency, and establish appropriate land tenure (including transferability clauses) in easements and other authorizations to provide for long-term project viability.

**Forest Goal 4.1b.** Administer Renewable Energy Resource developments while protecting ecosystem health.

**Forest Goal 7.1.** Retain natural areas as a core for a regional network while focusing the built environment into the minimum land area needed to support growing public needs.

Part 2 of the Forest Plan includes the ANF program emphasis and objectives and strategic management direction, which allows the USFS to make progress towards its vision presented in Part 1 of the Forest Plan. Within the strategic management direction, land use zones are designated to show allowable uses and opportunities. Land use zones within the study corridors are presented in Table 2-1. Special use permit proposals are “suitable if they are consistent, or can be made consistent through mitigation and design factors, with the applicable Forest Plan [2005 Angeles National Forest Land Management Plan] standards.”

**TABLE 2-1. ANGELES NATIONAL FOREST SUITABLE COMMODITY AND COMMERCIAL USES**

<table>
<thead>
<tr>
<th>Activity or Use</th>
<th>Developed Area Interface (DAI)</th>
<th>Back Country (BC)</th>
<th>Back Country Motorized Use Restricted (BCMUR)</th>
<th>Back Country Non-Motorized (BCNM)</th>
<th>Critical Biological (CB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Non-Rec) Special Use Low Intensity</td>
<td>Suitable</td>
<td>Suitable</td>
<td>Suitable</td>
<td>By Exception*</td>
<td>By Exception*</td>
</tr>
<tr>
<td>Major Utility Corridor</td>
<td>Designated Areas</td>
<td>Designated Areas</td>
<td>Designated Areas</td>
<td>Not Suitable</td>
<td>Not Suitable</td>
</tr>
<tr>
<td>Road Construction or Reconstruction</td>
<td>Suitable</td>
<td>Suitable</td>
<td>Suitable for Authorized Use</td>
<td>Not Suitable</td>
<td>Not Suitable</td>
</tr>
<tr>
<td>Developed Facilities</td>
<td>Suitable</td>
<td>Suitable</td>
<td>By Exception*</td>
<td>Not Suitable</td>
<td>Not Suitable</td>
</tr>
</tbody>
</table>

* Conditions which are not generally compatible with the land use zone but may be appropriate under certain circumstances.

These land use zones will be managed as follows:

- **DAI** – motorized public access
- **BC** – motorized public access on designated roads and trails
- **BCMUR** – non-motorized (mechanized, equestrian, and pedestrian) public access. Motorized use is restricted to administrative purposes only that include USFS, other agency, or tribal government needs, as well as access needed to private land or authorized special-uses.
- BCNM – non-motorized uses that include mechanized, equestrian and pedestrian public access. Administrative access (usually for community protection) is allowed by exception for emergency situations and for short duration management purposes (such as fuel treatment).
- CB – limit the level of human development for protection of species-at-risk.

In addition, Part 2 contains a set of special designation overlays which identify suitable land uses within each land use zone of the ANF. When differences between the suitable uses of the land use zones and special designation overlays occur, the more restrictive set of allowable uses apply. The following special designation overlays are present in the study corridors.

- Wild and Scenic River - This special designation overlay identifies river and river segments that have been designated as Wild, Scenic and Recreational. Land uses within these designated river corridors must comply with USDA Forest Service Handbook 1909.12, Chapter 8.2. Eligible Wild and Scenic river corridors within the study corridors include San Francisquito Canyon.

- Inventoried Roadless Areas - This special designation overlay identifies those portions of the ANF where either: (1) no road construction or reconstruction is allowed and the area has been recommended or is designated Wilderness; (2) no road construction or reconstruction is allowed and the area has not been recommended or is not designated Wilderness; (3) road construction or reconstruction is allowed. Inventoried Roadless Areas within the study corridors include Red Mountain and Salt Creek.

- Other Designations - This special designation overlay identifies areas of the ANF that have been designated for a specific use, including communication sites, utility corridors, transportation corridors, recreation residential tracts, shooting areas, and sediment disposal sites. There are 3 designated utility corridors within the study corridors, including: Old Ridge Route; Gorge Rinaldi; and BPL.

Part 2 of the Forest Plan also subdivided the ANF into geographical “Places,” for which the desired condition and the program emphasis is described for each. The study corridors are situated within the Liebre-Sawmill, Santa Clara Canyon, I-5 Corridor, and Soledad Front Country Places. The desired condition for the Liebre-Sawmill Place is the natural undeveloped appearance of the landscape, with dramatic desert panoramas and open space areas. The management program for the Liebre-Sawmill Place emphasizes the preservation of forest health and aims to maintain the area’s sense of remoteness and minimal use.

The desired condition for the Santa Clara Canyon Place is the natural appearance and pastoral landscape, with dramatic canyon panoramas, rugged mountain backviews, and oak woodlands. The management program emphasizes a focus on community protection, recreation use, and urban and forest infrastructure that is sustainable, sympathetic to the natural setting and integrity, and has nominal effects to wildlife habitat as well as heritage resources.

The desired condition for the Soledad Front Country Place is to maintain its function as a scenic backdrop, with dramatic canyons and rugged mountains. The management program emphasizes fire protection for surrounding communities, and the management of recreational use.

The desired condition for the I-5 Corridor Place is a scenic transportation gateway that provides canyon and rugged mountain views to visitors traveling along Interstate 5. The management program emphasizes sustainable urban and forest infrastructure that preserves the integrity of the natural setting and minimizes the effects to species of concern, as well as heritage resources.

Part 2 describes the trends and expectations, as well as anticipated resource improvements planned over the next three to five years. The program emphasis and objectives for non-recreation special uses is to
manage infrastructure needs to support communities while preserving open space and natural settings. Special uses are authorized only when they cannot be reasonably accommodated on non-NFS lands. Maintaining open space is given priority over accommodating urban needs.

Part 2, Appendix B, of the 2005 Forest Plan includes a list of program strategies that the ANF may choose to emphasize to progress toward achieving the desired conditions and goals of the Forest Plan. The following is a summary of the program strategies that are applicable to land use and Special Use Authorizations (SUAs) as related to the proposed Project.

**Lands 2—Non-Recreation Special-Use Authorizations.** Optimize utilization of encumbered NFS land and efficiently administer SUAs:
- Work with SUA holders to better administer NFS land and reduce administrative cost.
- Require SUAs to maximize opportunities to co-locate facilities and minimize encumbrance of NFS land.

Part 3 of the Forest Plan provides the management and design criteria that the USFS is directed to implement to achieve the vision of the ANF, as outlined in Part 1 of the Forest Plan. The NFMA requires that these standards are mandatory and must be met or a project specific plan amendment must be included with the project. As opposed to the ANF specific design criteria in Part 2, these standards are common to all four Southern California forests. They include management standards for: vegetation; aesthetics; fish and wildlife; soil, water, riparian and heritage resources; wild and scenic rivers; cultural and historic resources; geographic Places; other design criteria; and, monitoring. The following Forest Plan management and design criteria would be applicable to the Project:

**Aesthetic Management Standards**

**S10:** Scenic Integrity Objectives will be met with the following exceptions:
- Minor adjustment 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.

**Fish and Wildlife Standards**

When Implementing Recreation Activities

**S42:** Include provisions for raptor safety when issuing permits for the new power lines and communication sites (see guidelines in Appendix G). Also implement these guidelines for existing permits within one year in identified high-use flyways of the California condor, and within five years in other high-use raptor flyways. Coordinate with California Department of Fish and Game, U.S. Fish & Wildlife Service, and power agencies to identify the high-use flyways.

**Soil, Water, Riparian and Heritage Standards**

Applicable Within Riparian Conservation Areas

**S47:** When designing new projects in riparian areas, apply the Five-Step Project Screening Process for Riparian Conservation Areas as described in Appendix E- Five-Step Project Screening Process for Riparian Conservation Areas.

**Wild and Scenic River Standards**

**S59:** Manage eligible wild and scenic river segments to perpetuate their free-flowing condition and proposed classifications, and protect and enhance their outstanding 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.

**Pacific Crest Trail Management Plan: Angeles National Forest**

The Pacific Crest Trail Management Plan (USDA Forest Service, 1980) was developed to provide management direction for the portion of the PCT that traverses NFS lands within the ANF. In general, the Plan identifies three types of conflicting uses along the PCT that it attempts to resolve through a number of policies. These conflicting uses include:

- Illegal off-highway vehicle (OHV) use of the PCT;
- Recreational shooting in the vicinity of the PCT; and
- Conflicts between private land uses and improvements and public use of the PCT.

The PCT Management Plan divides the ANF portion of the PCT into four sections; Section C, Liebre-Annan, includes the northwestern portion of the Santa Clara/Mojave Rivers Ranger District where the proposed Project would traverse the PCT. The Plan describes three major transmission lines in Bouquet and San Francisquito Canyons that cross the PCT. However, the Plan does not include any policies that pertain to changes in the existing use or recreational value of the PCT from the construction of new projects in the vicinity of the PCT.

In addition, the Pacific Crest Trail Association 2007–2009 Strategic Plan was approved July 15, 2006 and contains goals and strategies for the permanent protection of the PCT through wilderness and other public lands.

### 2.1.3 U.S. Department of the Interior, Bureau of Land Management

The BLM is responsible for the management, administration and conservation of over 40 percent of all public lands which are managed by the Federal government (National System of Public Lands). The functions of the BLM are principally outlined in the Federal Land Policy and Management Act (FLPMA) of 1976, as amended (BLM 2007). The FLPMA directs the BLM to manage and administer public lands on a multiple-use basis, and requires its development and maintenance of and, when appropriate, revision to, land use and resource management plans (BLM 2007). Pursuant to the FLPMA, a right-of-way grant is required for construction and operation of any portion of a proposed transmission line that crosses public lands managed by the BLM. Transmission line segments fall within the BLM’s California Desert District, including areas managed by the Ridgecrest Field Office (Kern and Los Angeles Counties). Segments are also situated within the boundaries of the California Desert Conservation Area (CDCA) Plan and West Mojave Plan.

The CDCA Plan (1980, as amended) is a comprehensive, long-range plan with goals and specific actions for the management, use, development, and protection of the resources and public lands within the CDCA, and it is based on the concepts of multiple use, sustained yield, and maintenance of environmental quality.

The CDCA Plan assigns a “multiple use class” designation to public lands according to the allowable level of multiple use, as follows:

- **Class C** (Controlled Use) designation is the most restrictive, and is assigned to wilderness with minimal levels of multiple use.
- **Class L** (Limited Use) lands are managed to provide lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.
- **Class M** (Moderate Use) lands are managed to provide for a wider variety of uses such as mining, livestock grazing, recreation, utilities, and energy development, while conserving desert resources and mitigating damages permitted uses may cause.
- **Class I** (Intensive Use) provides for concentrated uses of lands and resources to meet human needs.
- Class U (Unclassified) lands are scattered and isolated parcels of public land in the CDCA which have not been placed within multiple-use classes. These parcels will be managed on a case-by-case basis, as explained in the Land Tenure Adjustment Element.

Within the western Mojave Desert, 457,721 acres are designated Class C, 1,269,313 acres Class L, 877,042 acres Class M and 378,467 acres Class I. About 281,331 acres are unclassified.

The Plan’s goals and actions for each resource are established in its 12 elements. Each of the Plan elements provides both a desert-wide perspective of the planning decisions for one major resource or issue of public concern as well as more specific interpretation of multiple-use class guidelines for a given resource and its associated activities.

The West Mojave Plan (WEMO) is an amendment (2006) to the CDCA Plan developed expressly to address special-status plant and animal species and to establish conservation strategies for those species within the multiple use context required for the CDCA by section 601 of the Federal Land Management and Policy Act (FLPMA).

WEMO is designed to provide a comprehensive strategy to conserve and protect more than 100 listed or sensitive wildlife species and their habitats, including the desert tortoise and Mohave ground squirrel. WEMO directly impacts the planning and use of 3.3 million acres of public lands administered by BLM and is seen as the first step in approval of the West Mojave habitat conservation plan (HCP) being developed by San Bernardino, Kern, Los Angeles, and Inyo counties, federal and state agencies, and 11 cities.

The CDCA Plan designates 16 major Energy Production and Utility Corridors (CDCA Plan 1993) as a guide to consolidate compatible rights-of-way, avoid sensitive resources wherever possible, complete the delivery-systems network, consider ongoing projects for which decisions have been made, and to consider corridor networks that take into account power needs and alternative fuel resources. The scope of the CDCA Plan allows the designation of corridors that address the following types of utility facilities: (1) New electrical transmission towers and cables of 161 kV or above; (2) All pipelines with diameters greater than 12 inches, coaxial cables for interstate communications; (3) Major aqueducts or canals for inter-basin transfers. The Plan calls for these corridors to be designed to provide a two-mile standard for separation of existing facilities and to accommodate flexibility in the selection of alternative routes for a right-of-way.

Designated utility corridors within the study corridors as they relate to BLM public land are presented in Table 2-2.

**Table 2-2. Designated Utility Corridors on BLM Public Land within the Study Corridors.**

<table>
<thead>
<tr>
<th>Field Office</th>
<th>Plan</th>
<th>Designated Utility Corridor</th>
<th>West-Wide Energy Corridor Final PEIS Energy Corridor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridgecrest</td>
<td>California Desert Conservation Area Plan, as Amended</td>
<td>Yes - Corridor A*</td>
<td>Yes - Corridor 23-106**</td>
</tr>
<tr>
<td></td>
<td>West Mojave Plan</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Palm Springs-</td>
<td>South Coast Resource Management Plan (1994 - Under Revision)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>South Coast</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2 miles in width

**37.3 miles, 6,880-10,560 feet, multimodal. Would require DoD coordination during Project planning (Military Training Route with Floor <1,000 feet above Ground Level, Special Use Airspace with Floor <1,000 feet above Ground Level, within 5 miles of DoD Site).

Source: CDCA Plan, 1980 and West-wide Energy Corridor Final Programmatic EIS (November 2008)
2.1.4 Federal Aviation Administration, Federal Aviation Regulation Title 14, Part 77

Airports and navigable airspace not administered by the DoD are under the jurisdiction of the Federal Aviation Administration (FAA). The FAA issues and enforces regulations related to air traffic control and the assignment and use of airspace. The FAA’s regulations are found in the Federal Aviation Regulations (FAR). FAR Title 14, Part 77, establishes the standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (approximately 3.8 miles) of an airport. As presented in Table 5-4, the proposed Project and its alternatives are located near several airports, and would have to comply with the safety requirements established by Title 14 Part 77, as applicable.

The standards and notification requirements of FAR Title 14 Part 77 are intended to: 1) evaluate the effect of the construction or alteration of structures on airport operating procedures; 2) determine if the construction or alteration would result in a potential hazard to air navigation; 3) identify measures to enhance safety. The FAA requires notification through the filing of FAA Form 7460-1, Notice of Proposed Construction or Alteration, and Form 117-1, Notice of Progress of Construction or Alteration, if any of the following criteria are met due to implementation of a proposed action (Title 14 Part 77.13) (Federal Aviation Administration, 2007):

- Any construction or alteration [of a structure or object] of more than 200 feet in height above the ground level at its site
- Any construction or alteration [of a structure or object] of greater height than an imaginary surface extending outward and upward at one of the following slopes:
  - 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport with at least one runway more than 3,200 feet in actual length, excluding heliports
  - 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified with its longest runway no more than 3,200 feet in actual length, excluding heliports
  - 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport
- Any proposed highway, railroad, or other traverse way for mobile objects with a height which would exceed the standards of Part 77.13 (a) (1), (2) or (3)
- When requested by the FAA, any construction or alteration [of a structure or object] that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of subpart C of this Part [Part 77]
- Any construction or alteration of a structure or object located on a public use airport or heliport that meets the criteria of Part 77.13 (a) (5)

2.1.5 U.S. Department of Defense

There are a number of federal and state laws mandating the development of environmental plans, including land and resource management plans, for military installations. The DoD provides supplemental guidance to these laws at a component-specific level (e.g. the U.S. Air Force, U.S. Army, etc.). In most instances, each DoD component establishes additional compliance guidance to promote uniformity; each component may also obligate its respective installations to prepare additional environmental plans and documents, depending on the nature of its specified mission.

Comprehensive Plans

A comprehensive plan is used to meet current planning needs and to set a vision for meeting the challenges related to future growth and change. The land use plan helps base personnel understand
existing conditions, documents existing needs and future expectations, and provides the programs and projects that can help the base react effectively to an ever-changing world.

China Lake Naval Air Weapons Station

The Comprehensive Land Use Management Plan (CLUMP) for China Lake Naval Air Weapons Station (2005) serves as the installation’s guide to land management, containing land use guidelines and procedures for the management of military operations and environmental resources. The Plan incorporates the following planning context to aid installation administrators with development:

- Provides an understanding of the need for a planning approach to development
- Outlines the region and military context
- Describes the current and future mission of the installation and how it relates to land use
- Sets forth a framework for land management and an implementation guide

Edwards Air Force Base

The General Plan for Edwards Air Force Base (AFB) provides decision makers with an overview of installation development patterns and growth, as well as a vision of the installation’s capability for supporting its mission in relation to physical assets. The plan incorporates the following planning context to guide development:

- Highlights findings and recommendations for development to guide the base into a sustainable future
- Provides a regional profile and an overview of installation missions and current, related development plans
- Outlines constraints and opportunities in relation to land use
- Provides a maintenance plan to keep the general plan up to date

Fort Irwin

The Fort Irwin / National Training Center Real Property Master Plan is dated November 1996. The plan is currently undergoing an update, which was expected to be completed by mid-2008. The current plan focuses on development and land use within the installation boundary and has limited discussion of off-installation issues.

Air Installations Compatible Use Zones

For China Lake Naval Air Weapons Station, Edwards Air Force Base, and Air Force Plant 42, a critical planning document is the Air Installations Compatible Use Zones (AICUZ) program (note: some Services use the singular form, Air Installation Compatible Use Zone). The AICUZ is a DoD planning program that was developed in response to incompatible urban development and land use conflicts around military airfields.

The AICUZ study seeks to develop a cooperative relationship between communities and military installations and provides land use compatibility guidelines designed to protect public health and safety, as well as maintain military readiness. As designed, the AICUZ study evaluates three components: noise, vertical obstructions, and accident potential zones.

Every Navy and Air Force installation with air operations has delineated at both ends of all active runways a set of three accident potential zones referred to as the Clear Zone (CZ), Accident Potential Zone I (APZ I), and Accident Potential Zone II (APZ II). These areas are determined based on a statistical analysis of all DoD aircraft accidents.

China Lake Naval Air Weapons Station

An interim China Lake AICUZ study was released in 2007. The previous AICUZ was approved in 1977, and Kern County and the City of Ridgecrest evaluated that document and enacted the AICUZ-compatible
land use provisions into their zoning ordinances and general plan. The 2007 AICUZ outlines noise and safety issues in relation to both the baseline (current) and prospective operational conditions of the base as laid out in the 2004 Environmental Impact Statement (EIS) for Proposed Military Operational Increases and Implementation of Associated Comprehensive Land Use and Integrated Natural Resources Management Plans. The proposed action in the EIS acts as a basis for the program laid out in the 2007 AICUZ. The installation’s cooperation with local government agencies is outlined in the introduction to the AICUZ, which states the responsibility of the Navy to inform and cooperate with the planning departments of Kern and San Bernardino counties along with the City of Ridgecrest. As noted above, this study is an interim report and, after further evaluation, including the impact of the Joint Strike Fighter, an updated AICUZ may be released.

The study proposes an expansion of the traditional AICUZ planning area, called a Military Influence Area (MIA), to address the higher safety risks in these areas.

Edwards Air Force Base
Edwards AFB is exempt from publicly releasing a full AICUZ study since all noise contours and accident potential zones are located within the base boundaries.

Air Force Plant 42
Air Force Plant 42 produced an AICUZ study in 1990, updated in 2000, that provides noise contours and compatible use guidelines for land areas surrounding the installation. Recommendations are based on November 2001 operations and anticipated future aircraft and maintenance runup operations. The study is used to assist the local communities as a tool for future planning and zoning activities. Specially, the guidelines provide land use recommendations for APZ and four noise zones. APZs are areas where an aircraft accident is likely to occur, that follow arrival, departure, and pattern flight tracks, and are based upon analysis of historical data. AICUZ maps define three APZs—the CZ, APZ 1, and APZ 2. The Clear Zone extends 3,000 feet beyond the runway, APZ 1 extends 5,000 feet beyond the Clear Zone, and APZ 2 extends 7,000 feet beyond APZ 1.

Natural Resource Planning
The policy of the DoD is to fully comply with applicable federal, state, and county laws, ordinances, regulations, and guidelines, specifically designed to protect and preserve the environment. The Sikes Act Improvement Amendments of 1997 requires that the DoD manage their natural resources while providing a sustained method for the multiple uses of those resources. The Act also requires an Integrated Natural Resources Management Plan (INRMP). To guide natural resource management efforts on installation, China Lake Naval Air Weapons Station, Edwards AFB, and Fort Irwin each maintain an INRMP.

2.1.6 Farmland Protection Policy Act (7 U.S.C. Section 4201)
The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It additionally directs federal programs to be compatible with state and local policies for the protection of farmlands. Congress passed the Agriculture and Food Act of 1981 (Public Law 97-98) containing the FPPA—Subtitle I of Title XV, Section 1539-1549. The final rules and regulations were published in the Federal Register on June 17, 1994.

The FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It ensures that, to the extent possible, federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years. The FPPA does not authorize the Federal Government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners.
For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency.

2.1.7 Land and Water Conservation Fund Act, 16 U.S.C., Section 460, 1-8

The Land and Water Conservation Fund (LWCF) is a conservation program established by Congress in 1965 to create parks and open spaces, to protect wilderness, wetlands, and refuges, to preserve wildlife, and to enhance recreational opportunities. The National Park Service’s (NPS) Pacific West Regional Office administers the LWCF program for California and other western states. Property acquired or developed with LWCF assistance is to be retained and used for public outdoor recreation. Conversions of properties under Section 6(f)(3) of the LWCF Act occur when a project or use eliminates or diminishes the public outdoor recreation of protected lands.

Typical types of conversions are:
1. Property interests are conveyed by the project sponsor to another party for full or partial control of the land, which would result in uses other than public outdoor recreation as approved by NPS. This includes granting any control of the land, such as through easements, rights-of-way, and leases, for the construction and maintenance of a utility line, pipeline, irrigation ditch, road, or similar facility. It applies to above- and below-ground impacts.

2. Non-outdoor recreation uses (public or private) are made of the project area, or a portion thereof. This could include the construction of structures or facilities by the project sponsor or others which would not be compatible with the existing outdoor recreation uses, such as fire stations, civic centers, libraries, schools, and communication towers.

A possible exception could occur if the project sponsor, without relinquishing any control over the area, would allow another party to construct an underground utility or similar development. This would apply if the construction would not impair the present and future recreational use of the property and the surface area would be restored to allow for outdoor recreational use. A temporary construction permit must be prepared and no permanent transfer of property rights may occur.

3. Ineligible indoor recreation facilities are developed within the project area. This might occur if a facility such as a community center or indoor tennis center were built on a project site without prior federal approval. Generally, if the park site is large and sufficient outdoor recreation space will remain, indoor recreation facilities may be allowed. On small sites, however, where an indoor facility would dominate the space and restrict the usability of the park for outdoor activities, such proposals will not be considered.

4. Public outdoor recreation use of property acquired or developed with LWCF assistance is terminated. This might occur, for example, if the park or facility were closed, which could be for a variety of reasons. Included would be title to the land reverting to a previous owner due to reversionary clauses in the deed or another party exercising outstanding rights which disrupt park use, which might happen with mineral extraction. A conversion will not occur in the case of a development project on a site leased to the park board when a long-term lease expires at the end of the term. If, however, the lessor revokes such a lease prior to its full term, generally a conversion will be considered to have occurred. In either case, the property owner must maintain the site in perpetual outdoor recreational use, as required by the LWCF Act.
The above actions are not all-inclusive and other kinds of actions could result in a Section 6(f) conflict. The authority to make a final determination as to whether a potential Section 6(f) conflict exists rests with the NPS.

In certain situations, a conversion cannot be avoided and the approval of NPS must be sought. Land that is converted must be replaced with land of equal value, usefulness, and location. Repayment of the amount of LWCF assistance in lieu of replacement property will not be allowed, nor will construction of replacement facilities.

2.1.8 National Trails System Act of 1968

The National Trails System Act of 1968 (Public Law 90-543), was passed by Congress in 1968 to create a series of trails “to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation.” The Act authorized National Scenic Trails as well as National Recreation Trails and the connecting-and-side trails. National Scenic Trails are established to provide access to “spectacular natural beauty and to allow the pursuit of healthy outdoor recreation” and “extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.” In addition, the 1968 act also authorized creation of the PCT as a National Scenic Trail. As Congressionally-established long-distance trails, each trail is administered by a federal agency, such as by the USFS for the PCT.

2.2 STATE

2.2.1 California Department of Conservation, Division of Land Resource Protection

The Department of Conservation (DOC) applies the Natural Resources Conservation Service (NRCS) soil classifications to identify agricultural lands, and these agricultural designations are used in planning for the present and future of California’s agricultural land resources. The DOC has a minimum mapping unit of ten acres, with smaller than ten-acre parcels being absorbed into the surrounding classifications.

The list below provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as Farmland.

- **Prime Farmland.** Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Farmland of Statewide Importance.** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Unique Farmland.** Farmland of lesser quality soils used for the production of the state’s leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

- **Farmland of Local Importance.** Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.

- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
Urban and Built-up Land. Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a ten-acre parcel. This land is used for residential, industrial, commercial, institutional, and public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Other Land. Land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines and borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

2.2.2 California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code Section 51200-51297.4, and therefore is applicable only to specific land parcels within the State of California. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under Williamson Act contracts. The Williamson Act program is administered by the DOC, in conjunction with local governments, which administer the individual contract arrangements with landowners. The landowner commits the parcel to a ten-year period wherein no conversion out of agricultural use is permitted. Each year the contract automatically renews unless a notice of non-renewal or cancellation is filed. In return, the land is taxed at a rate based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. Participation in the Williamson Act program is dependent on county adoption and implementation of the program and is voluntary for landowners.

The Williamson Act states that a board or council by resolution shall adopt rules governing the administration of agricultural preserves. The rules of each agricultural preserve specify the uses allowed. Generally, any commercial agricultural use will be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted with a use permit.

California Government Code Section 51238 states that, unless otherwise decided by a local board or council, the assembly and installation, construction, alteration, or maintenance of electric and communication facilities, as well as other facilities, are determined to be compatible uses within any agricultural preserve. Also Section 51238 states that board of supervisors may impose conditions on lands or land uses to be placed within preserves to permit and encourage compatible uses in conformity with Section 51238.1.

Further, California Government Code Section 51238.1 allows a board or council to allow as compatible any use that without conditions or mitigations would otherwise be considered incompatible. However, this may occur only if that use meets the following conditions:

- The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels on other contracted lands in agricultural preserves.

- The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.

- The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.
2.2.3 Farmland Security Zone Act

The Farmland Security Zone Act is similar to the Williamson Act and was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy. Farmland Security Zone Act contracts are sometimes referred to as “Super Williamson Act Contracts.” Under the provisions of this act, a landowner already under a Williamson Act contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35% reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the owner of the property promises not to develop the property into nonagricultural uses.

2.2.4 California Department of Education School Site Selection and Approval Guide

California Education Code Section 17251 and the California Code of Regulations (CCR) Title 5, Sections 14001 through 14012 outline the California Department of Education’s (CDE’s) authority for approving proposed school sites and constructing school buildings. CDE must approve each site in order for that site to receive state acquisition funds under the School Facilities Program administered by the State Allocation Board. According to the CDE School Site Selection and Approval Guide, some of the many factors that affect school site selection include health and safety, location, size, and cost. The CDE regulations adopted pursuant to Section 17251 contain the following standard for school sites, among others:

CCR Section 14010[c]: For power lines and transmission lines, the property line of a proposed school site shall be at least (i) 100 feet from the edge of an easement for a 50-133 kV line, (ii) 150 feet from the edge of an easement for a 220-230 kV line, and (iii) 350 feet from the edge of an easement for a 500-550 kV line.

Under CDE’s Power Line Setback Exemption Guidance dated May 2006, a school district may request a Limited Use Activity Exemption for proposed school sites that are located within the setback established by CDE for overhead transmission lines. With CDE’s approval, the following uses would be allowed within the setback area: parking; drop-off and loading zones; driveways, access roads, and sidewalks; internal vehicular circulation and fire lanes; landscaping; gross acres that are unusable for school purposes or activities (e.g., retention basins, steep slopes, wetlands, waterways); support facilities of occasional use (e.g., warehouses, boiler rooms, etc.) (CDE, 2006b). Uses that would not be permitted within the setback would include play and activity fields, stadiums, and occupied school buildings.

CDE may also approve a school district request for a Setback Exemption, which would measure the setback from the ground level of the closest or highest kilo-voltage transmission line (whichever creates the largest setback) instead of from the edge of the easement. However, a Setback Exemption would only be approved if it can be reasonably determined that new or relocated overhead transmission lines would not be placed closer to the school within the easement, unless these transmission lines reduced the EMF on the usable portions of the school site.

Prior to issuing any exemption, CDE must be satisfied that a selected school site was determined to be the preferable site (per the School Site Selection and Approval Guide and other safety and cost complications) among all other potential sites considered by the school district during its school site selection process.

2.2.5 California Military Land Use Compatibility Analysis

The State of California recognizes the military’s needs for low-level flight paths special use airspace to train personnel and test weapon systems effectively. The State also recognizes that the development of certain land uses may impair the military’s ability to train personnel and test weapon systems. As such,
Senate Bill 1462 requires state agencies to consider the effects of civilian land uses that may be incompatible with the military’s use of its assets. The Bill authorizes any branch of the U.S. Armed Forces to consult with a public agency and a project applicant to discuss the potential alternatives, mitigation measures, and the effects of the project on its military installations.

The California Military Land Use Compatibility Analyst (CMLUCA) was developed by the Governor’s Office of Planning and Research to help project sponsors determine whether a proposed project has the potential to affect military readiness and requires local planning agencies to notify the military whenever proposed development is located within 1,000 feet of a military installation, within special use airspace, or beneath a low-level flight plan. The Joint Service Restricted Air Space was created by the DoD and the FAA in recognition that aircraft associated with these military installations extends well beyond their boundaries. The area covered by the Joint Service Restricted R-2508 Complex includes 20,000 square miles in which unrestricted military flights are permitted at near ground level in some locations. The area also includes other restricted airspaces, such as R-2515, which is adjacent to Edwards Air Force Base and includes the BRRTP area.

### 2.2.6 California State Lands Commission

Public lands under the California State Land Commission’s (CSLC’s) jurisdiction include sovereign and school lands. Sovereign lands include the beds of California’s naturally navigable rivers, lakes and streams, and the state’s tide and submerged lands along the coast. School lands are located throughout the state and were originally granted to California by Congress in 1853 to benefit public education. Under the CSLC, the State retains surface and mineral ownership of approximately 469,000 acres of school lands, and retains the mineral rights to an additional 790,000 acres (CSLC, 2007). The CSLC’s Land Management Division has primary responsibility for the surface management of all sovereign and school lands in the state, including their leasing and management. Pursuant to the California Code of Regulations, Title 2, Division 3, Chapter 1, Article 2, public and private entities may apply for leases or permits on public lands for a variety of uses, including rights-of-way.

### 2.2.7 California Department of Parks and Recreation

California State Parks’ Planning Division develops the California Outdoor Recreation Plan: the statewide master plan for parks, outdoor recreation, and open space for all recreation providers. The California Outdoor Recreation Plan (CORP) provides policy guidance to all public agencies—federal, state, local, and special districts—engaged in providing outdoor recreational lands, facilities and services throughout California.

The CORP is updated periodically, most recently in 2002. Work is continuing on the 2007 revision. The California Department of Parks and Recreation manages 280 units throughout the state. Units are classified by statute and can include, but are not limited to, State Parks, State Recreation Areas, State Vehicular Recreation Areas, State Reserves, and State Historic Parks. Units of the State Parks system can also include sub-units, such as State Wilderness, Cultural Preserves, and Natural Preserves. These parks protect and preserve culturally and environmentally sensitive structures and habitats, threatened plant and animal species, ancient Native American sites, and historic structures and artifacts.

**Antelope Valley California Poppy Reserve**

The Antelope Valley California Poppy Reserve Resource Management Plan/General Development Plan/Environmental Report is a guide for the future development and management of the Reserve. More specifically, the Plan:

- Identifies the natural and cultural resources in the unit, and provides for their perpetuation, protection, management, enhancement, and interpretation.
- Determines the maximum carrying capacity of the unit’s lands, and ensures that uses planned are within this limitation.
- Identifies and attempts to provide solutions to existing problems at the reserve.
- Provides appropriate recreational opportunities for California citizens, with special emphasis on the needs of urban populations within a two-hour travel time zone of the reserve.
- Determines possible environmental impacts of the General Development Plan, and alternatives to the plan.
- Provides guidelines for facility development.
- Identifies lands outside existing reserve boundaries that are of prime concern to present and future environmental values, and to visitor use of the reserve.

The Plan also serves as an informational document for the public, reserve management personnel, the Legislature, and local entities.

2.3 REGIONAL/LOCAL

2.3.1 Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a regional council of governments that serves as the Metropolitan Planning Organization for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG serves as a forum for regional issues relating to transportation, the economy and community development, and the environment.

SCAG is responsible for developing transportation, land use, and energy conservation measures that improve quality of life. The SCAG Regional Comprehensive Plan and Guide is a compilation of the summaries of plans for the southern California region, which includes the counties mentioned above. The plan consists of the following sections: the Core Chapters (i.e., Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management) include the federal and state requirements placed on SCAG in addition to non-binding advisory materials and guidance; the Ancillary Chapters (i.e., Economy, Housing, Human Resources and Services, Public Finance, Open Space and Conservation, Water Resources, Energy, and Integrated Waste Management) reflect other regional plans, but do not contain actions or policies that are required of local governments.

The Housing, Open Space and Conservation, and Energy chapters provide background information for the status of these issue areas in southern California, but do not contain policies that would be applicable to the proposed Project. However, the Growth Management chapter lists the following policy regarding public facility and utility systems:

- Growth Management Policy D-1(iii): The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region’s growth policies.

2.3.2 Local Land Use Plans

The counties and cities have adopted general plans as required by the State (Government Code Section 65300 et seq.) to guide local decision-making regarding future land uses, growth, and other local decisions relating to circulation systems, public open space, and public facilities (including schools and libraries). In addition to general plans, the State requires counties and cities to adopt a local zoning ordinance (Government Code Section 65800 et seq.) to implement their general plan through development standards and regulations. Zoning ordinances enumerate uses permitted by right or are subject to the approval of a land use review process within each district. Most ordinances also possess a means to grant discretionary permits, provided certain conditions are met. These discretionary permits are often referred to as Conditional Use Permits (CUP) or Special Use Permits (SUP).

General Plans

As stipulated by California Government Code Section 65300 et seq., cities and counties are required to develop and adopt General Plans to guide local decision-making related to existing and future land use,
growth, and other local infrastructure, such as circulation systems, public open space, and other public facilities. In addition to General Plans, the State requires cities and counties to adopt local zoning ordinances (Government Code Section 65800 et seq.) to implement their adopted General Plan through development standards and regulations. For the purposes of this land use analysis, the following city- and county-based General Plans were considered:

- Kern County
- Los Angeles County
- City of Lancaster
- City of Los Angeles
- City of Palmdale
- City of San Fernando
- City of Santa Clarita

**Kern County General Plan**

The Kern County General Plan identifies the goals, policies, and implementation measures that are applicable to the unincorporated areas within the county. The Kern County General Plan was updated on June 15, 2004. The latest version is dated September 22, 2009. Its purpose is to give long-range guidance to county officials making decisions affecting the growth and resources of unincorporated Kern County. The following policies would be applicable to portions of the Segments that traverse unincorporated Kern County areas:

**Land Use, Open Space, and Conservation Element**

- **Residential Policy 5:** Discourage premature urban encroachment into areas of intense agriculture areas.
- **Resource Policy 2:** In areas with a resource designation on the General Plan map, only industrial activities which directly and obviously relate to the exploration, production, and transportation of the particular resource will be considered to be consistent with this General Plan.
- **Resource Policy 7:** Areas designated for agricultural use, which include Class I and II and other enhanced agricultural soils with surface delivery water systems, should be protected from incompatible residential, commercial, and industrial subdivision and development activities.
- **Resource Policy 12:** Areas identified by the Natural Resource Conservation Service (formerly Soil Conservation Service) as having high range-site value should be conserved for Extensive Agriculture uses or as Resource Reserve, if located within a County water district.

**Energy Element**

- **Transmission Line Policy 1:** The County should encourage the development and upgrading of transmission lines and associated facilities (e.g., substations) as needed to serve Kern County’s residents and access the County’s generating resources, insofar as transmission lines do not create significant environmental or public health and safety hazards.
- **Transmission Line Policy 2:** The County shall review all proposed transmission lines and their alignments for conformity with the Land Use, Conservation, and Open Space Element of this General Plan.
- **Transmission Line Policy 3:** In reviewing proposals for new transmission lines and/or capacity, the County should assert a preference for upgrade of existing lines and use of existing corridors where feasible.
- **Transmission Line Policy 4:** The County should work with other agencies in establishing routes for proposed transmission lines.
- **Transmission Line Policy 5:** The County should discourage the siting of above-ground transmission lines in visually sensitive areas.
- **Transmission Line Policy 6:** The County should encourage new transmission lines to be sited/configured to avoid or minimize collision and electrocution hazards to raptors.
Circulation Element
The County’s Circulation Element identifies the general location of major thoroughfares, transportation routes, utilities, and facilities. The Kern County Airport Land Use Compatibility Plan (ALUCP) was developed to comply with the State Aeronautics Act (Public Utilities Code, Section 21670 et. seq.). The primary goal of the ALUCP is to plan for land uses that are compatible with public airports and military bases. The County reviews discretionary land use development applications within an airport influence area and the military base operating area shown in the ALUCP to determine consistency with the General Plan.

Military Readiness Element (In Progress)
The County is preparing a new Military Readiness Element to address the impact of new growth on military readiness activities. The Element recognizes China Lake Naval Air Weapons Station, Edwards Air Force Base, and the Joint Service Restricted R2508 Airspace Complex as essential components in California’s integrated system of military installations and special use airspace, as well as their importance in the County’s economy.

The Military Readiness Element that will be finalized and renewed for adoption as an amendment to the Kern County General Plan after the R-2508 JLUS is complete. This Element will consider the impact of new growth on military readiness activities carried out on military installations, and operating and training areas.

Kern County has specific regulations designed to address military compatibility. Key among these provisions is Section 19.08.160 of the Kern County Zoning Ordinance which includes restrictions on the height of structures in military flight areas. The county must submit alterations to a structure in a given zone designated on the Red/Yellow/Green height restrictions map to the military planning authority to ensure that the structure will not impede upon the missions of the installation within a specified zone. However, one can process a request to the Board of Supervisors for approval in a height-restricted area based on certain findings, if the applicant does not receive concurrence by the military.

Williamson Act Standard Uniform Rules
Kern County has adopted a set of Agricultural Preserve Standard Uniform Rules that identify land uses that are considered compatible uses within agricultural preserves established under the Williamson Act. These rules are designed to restrict the uses of land enrolled in a Williamson Act contract to agriculture or other compatible uses. Agricultural uses include crop cultivation, grazing operations, commercial wind farms, livestock breeding, dairies, and uses that are incidental to agricultural uses. Other compatible uses include the assembly and installation of gas, electric, communications, water, and other similar public utilities (Kern County Planning Department, 2004).

Los Angeles County General Plan
The Los Angeles County General Plan (Adopted 1980) is the guide for growth and development on a County-wide level in unincorporated Los Angeles County. More specifically, the BRRTP Segments fall within the County’s Santa Clarita Valley Area and Antelope Valley Areawide Plans. Both the Santa Clarita Valley Area Plan (Adopted 1990) and the Antelope Valley Areawide Plan (Adopted 1986) serve as an extension of the General Plan to reflect local needs. Area plans are used for large, continuous areas of the County and allow for comprehensive and detailed planning, as well as for planning in coordination with adjacent cities.

Los Angeles County is in the process of completing its first comprehensive General Plan Update since 1980. Efforts are also underway to update the Antelope Valley Area Plan and the Santa Clarita Valley Area Plan, a joint collaboration with the City of Santa Clarita called One Valley One Vision.
Land Use Element
The policies of the Land Use Element support the countywide General Plan policies of encouraging a more concentrated urban pattern through the revitalization of deteriorating urban areas, infilling of bypassed lands, and focusing new urban development in the most suitable locations.

The following policies would be applicable to portions of Segments that traverse unincorporated Los Angeles County areas:

- **Policy 14:** Ensure that new development is compatible with the natural and manmade environment by implementing appropriate locational controls and high quality design standards.
- **Policy 15:** Protect the character of residential neighborhoods by preventing the intrusion of incompatible uses that would cause environmental degradation such as excessive noise, noxious fumes, glare, shadowing and traffic.
- **Policy 17:** Establish and implement regulatory controls that ensure compatibility of development adjacent to or within major public open space and recreation areas including National Forests, the National Recreation Area, and state and regional parks.
- **Policy 20:** Protect identified Potential Agricultural Preserves by discouraging inappropriate land division and allowing only use types and intensities compatible with agriculture.

Conservation, Open Space and Recreation Element

**Ecological Resources Policy:** Protect significant agricultural resource areas and encourage the expansion of agricultural activities into underutilized lands such as utility rights-of-way and flood prone areas.

Antelope Valley Areawide General Plan
The 1986 Antelope Valley Areawide General Plan anticipates that most urban growth in Los Angeles County would continue near the urban centers of Lancaster and Palmdale. Quartz Hill is the largest of the unincorporated communities and the plan recognizes the predominately semi-urban character of the area by designating moderate residential densities for the area already so developed, and lesser densities to the northeast and southwest of the community. In addition, the General Plan provides for the protection of the existing rural low-density lifestyle of several communities including Acton, Crystalaire, Lake Hughes-Elizabeth Lake, Leona Valley, Littlerock, Pearblossom, Lake Los Angeles and Sun Village. Several very low-density rural villages, such as Juniper Hills and Antelope Acres, are scattered throughout the Antelope Valley.

The following policy statements from the Antelope Valley Areawide General Plan are applicable to portions of Segments that traverse the planning area:

- **Land Use, Agricultural Lands, Policy 28:** Within designated “Agricultural Opportunity Areas,” carefully evaluate extension of urban and suburban uses (outside the urban areas and the rural communities) for their impact on adjacent agricultural operations.
- **Community Design, Compatibility and Proximity of Urban Activities, Policy 62:** Mitigate where possible undesirable impacts of adjacent land uses (i.e., noise interruption, visual intrusion, and airborne emissions) through utilization of appropriate buffers, building codes and standards.
- **Community Design, Physical Appearances/Community Image, Policy 65:** Encourage the locating of new power distribution networks, communication lines, and other service network facilities underground in urban areas. Transmission lines should be located underground where feasible.
- **Environmental Resource Management, Antelope Valley Trails Plan, Policy 163:** Encourage the use of public utility ROWs for trails when practical and compatible with the utility.

Santa Clarita Valley Area Plan
The Santa Clarita Valley Area Plan (SCVAP) includes one land use policy statement that applies to portions of segments that traverse the Project area: The policy statement reads as follows:
Environmental Resources Management Element, Policy 6.4: Encourage the use of public utility ROWs for trails when practical and compatible with the utility present, as shown on the Trails Plan.

The County of Los Angeles SCVAP and the County of Los Angeles Development Code include provisions that are designed to preserve ridgelines. The SCVAP includes land use classifications such as the “Hillside Management” land use category under the “Special Management Areas” Section of the SCVAP. Development within Hillside Management Areas requires adherence to special precautions that are intended to limit development to the most suitable and least environmentally sensitive areas. In addition, it is intended that the scale and intensity of development be proposed in a manner that is compatible with the natural resources and character of the area.

Although the proposed Project is not located within the City of Santa Clarita and thus is not subject to the City’s Ridgeline Preservation and Hillside Development Ordinance, the southern portion of the Project area is located adjacent to the city boundary and this discussion is provided for that reason. The City of Santa Clarita General Plan identifies significant ridgelines as ridgelines that are visually dominant and important within the community. The City of Santa Clarita General Plan specifies that “Development should be strictly regulated in these areas [significant primary, secondary, and landmark ridges within the planning area] and significant ridgelines should generally not be graded nor construction placed upon them.” In order to protect these formally designated significant ridgelines, the Santa Clarita Municipal Code includes Section 17.80, Ridgeline Preservation and Hillside Development Ordinance.

City of Lancaster General Plan 2030

The City of Lancaster General Plan 2030 (2009) establishes local policy for the City of Lancaster and also considers the City’s sphere of influence. The General Plan is a policy statement to guide future growth. It presents the issues which face the City of Lancaster as well as the goals, objectives, policies, and specific actions which the City will pursue to resolve those issues. The Lancaster General Plan establishes the year 2030 as the benchmark date for the implementation of general plan policy.

The following policies and specific actions are applicable to portions of Segments that traverse the City of Lancaster:

- **Policy 3.6.6:** Consider and promote the use of alternative energy such as wind energy and solar energy.
  - **Specific Action 3.6.6(a):** Work with utility companies and private enterprises in their efforts to incorporate alternative energy resources including, but not limited to, wind and solar energy.
- **Policy 10.2.2:** Establish and acquire rights-of-way for master planned trails.
- **Specific Action 10.2.2(a):** Pursue agreements with public and private utilities for the use and maintenance of utility corridors and rights-of-way for trail purposes.
- **Policy 14.5.2:** Encourage the continued development of pipeline and utility corridors and rail freight lines, while minimizing the impacts on adjacent land uses and the roadway network.
  - **Specific Action: 14.5.2(a):** Through the development review process ensure that new development respects easements for existing pipes and utility lines.
  - **Specific Action 14.5.2(b):** Through the development review process encourage undergrounding of utilities within street rights-of-way and transportation corridors.
- **Policy 19.2.6:** Minimize the visual impacts of utility corridors and their associated equipment.
  - **Specific Action 19.2.6(a):** Work with all utility providers to determine the best location for utility cabinets and other associated hardware, with preference in areas where visual impacts are minimized.

City of Los Angeles General Plan

The City of Los Angeles General Plan (Plan), updated in part in 2001, is a comprehensive, long-range declaration of purposes, policies and programs for the development of the City. The Plan is a dynamic
The following section presents the goals, objectives, and policies related to infrastructure and public services in the City of Los Angeles. Implementing programs are referenced at the conclusion of each policy. Programs are also referenced after each policy in this document.

**Power**

**GOAL 9M:** A supply of electricity that is adequate to meet the needs of Los Angeles Department of Water and Power electric customers located within Los Angeles.

**Objective 9.26:** Monitor and forecast the electricity power needs of Los Angeles’ residents, industries, and businesses.
- **Policy 9.26.1:** The Los Angeles Department of Water and Power (LADWP) shall continue to monitor and forecast its customers’ peak load on its system and identify which parts of the system should be upgraded to accommodate expected growth.

**Objective 9.27:** Continue to ensure that all electric power customers will receive a dependable supply of electricity at competitive rates.
- **Policy 9.27.1:** The LADWP shall continue to generate or purchase electric power to serve its customers.

**Objective 9.28:** Provide adequate power supply transmission and distribution facilities to accommodate existing uses and projected growth.
- **Policies**
  - 9.28.1: The LADWP shall continue to plan its power supply capability far enough in advance to ensure that it has available capacity to meet customer demand before it is needed.
  - 9.28.2: The LADWP shall continue to ensure that the City’s transmission and distribution system is able to accommodate future peak electric demand for its customers.

**Objective 9.29:** Provide electricity in a manner that demonstrates a commitment to environmental principals, ensures maximum customer value, and is consistent with industry standards.
- **Policies**
  - 9.29.1: Develop and deliver services to attract, assist, and retain industries and businesses in Los Angeles.
  - 9.29.2: Promote the responsible use of natural resources, consistent with City environmental policies.
  - 9.29.3: Promote conservation and energy efficiency to the maximum extent that is cost effective and practical, including potential retrofitting when considering significant expansion of existing structures.
  - 9.29.4: Provide incentives for the development of cleaner and more energy-efficient industrial development.
  - 9.29.5: Deliver to all sectors of the economy customer service programs, products and activities that promote satisfaction and value related to the provision of electric power.
  - 9.29.7: Encourage additional markets for electrical energy, such as environmentally friendly alternative fuel for transportation in electric buses and light-duty vehicles.

**Objective 9.30:** Ensure continued electric service after an earthquake or other emergency.
- **Policy 9.30.1:** The LADWP shall periodically examine its emergency response programs to ensure continued electrical service.
City of Palmdale General Plan

The City of Palmdale General Plan (1993) establishes local policies for the City of Palmdale that consider regional issues pertaining to transportation, housing, open space, infrastructure, coordination of emergency services, and other physical, social, and economic concerns. The City has incorporated a number of recent developments into its planning boundaries, which include Ritter Ranch and the Anaverde Ranch development (originally entitled City Ranch). Specific Plan EIRs were prepared for both the Ritter Ranch and the Anaverde Ranch (City Ranch) projects, and the City Ranch Specific Plan (for the Anaverde Ranch development) was issued in May 1992. While a separate specific plan document was not issued for the Ritter Ranch development, the Ritter Ranch Specific Plan was incorporated into the City of Palmdale General Plan. As such, the policies presented in the City of Palmdale General Plan are applicable to the Ritter Ranch specific plan area.

- **Policy ER8.1**: Encourage the preservation of agricultural lands in non-urban areas as an interim use where urban development is not anticipated for several years.
- **Policy ER8.2**: Preserve agricultural uses as a means of retaining aquifer recharge both naturally and through treated water sources.
- **Policy S2.6.1**: If, in the future, conclusive evidence links electromagnetic fields (EMF) associated with electrical distribution lines, electrical distribution stations, or transformers with deleterious health effects, develop standards for construction, building setbacks, and/or land use restrictions for those areas impacted by hazardous EMF fields.

Ritter Ranch Specific Plan

The Ritter Ranch Specific Plan was prepared to establish a site-specific framework for the Ritter Ranch development (City of Palmdale 1992). The development encompasses 10,625 acres of land area and consists of a mix of residential, open space, public facility, recreational, school, and commercial land uses. The goals, policies, and design guidelines have been developed in consistency with the goals and policies of the City of Palmdale General Plan, and have been incorporated into the city’s general plan elements (please refer to Table 6-3).

City Ranch Specific Plan

The City Ranch Specific Plan was prepared to establish a site-specific framework for the Anaverde Ranch development (City of Palmdale, 1992). The development covers 1,985 acres of land area and consists of a mix of residential, commercial, golf course, recreational, open space, and community facility uses. The goals, policies, and design guidelines have been developed consistent with the goals and policies of the City of Palmdale General Plan, and have been incorporated into the city’s general plan elements (please refer to Table 6-3).

City of San Fernando General Plan

The City of San Fernando General Plan (1987) provides comprehensive planning for the future of the City. The San Fernando General Plan includes the seven mandated elements required by State planning law within six chapters, consistent with the General Plan Guidelines, which allow elements of similar topics to be combined. Specifically, the San Fernando General Plan is comprised of the following elements: Land Use, Circulation, Housing (2000), Open Space/Conservation/Parks, Safety, and Noise.

City of Santa Clarita General Plan

The City of Santa Clarita General Plan (1991) is designed to manage growth decisions within the City of Santa Clarita through the incorporation of goals, policies, and implementation actions. Each of the 12 elements that constitute the General Plan has been updated when appropriate to adequately address recent growth within the City.
The following elements and policies are applicable to portions of Segments that traverse the City of Santa Clarita.

- **Land Use Element, Policy 2.8:** Explore the utility ROWs for tree farms, nurseries, row crops, trails, and greenbelts.
- **Community Design Element, Policy 11.8:** Examine the use of the land under high power transmission lines for landscaping, tree farms, additional safe recreation areas, and other appropriate feasible uses.
- **Community Design Element, Policy 11.9:** Encourage single pole transmission towers and cellular poles, and avoid reinforced structural support bases.
- **Parks and Recreation Element, Policy 7.4:** Encourage multiple use and dedication of existing public easements for trail development including, but not limited to, utility lines and access easements, where appropriate.
- **Parks and Recreation Element, Policy 10.3:** Encourage and promote cooperation between agencies to facilitate the multiple use of public ROWs consistent with the general plan and public safety.

**Airport Land Use Plans**

In 1967 the California State Legislature authorized the creation of Airport Land Use Commissions (ALUC) to protect “public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimize exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses” (California Department of Transportation, 2007). The law requires each County’s ALUC to prepare an Airport Land Use Compatibility Plan (ALUCP) with a 20-year planning horizon. The law additionally provides for several alternative processes to the establishment of ALUCs for the adoption of ALUCPs, one of which calls for local agency (i.e., a county and the cities within it which are affected by operation of an airport) development and adoption of an ALUCP. Under either the ALUC process or one of its alternatives, the primary focus of an ALUCP is on noise and safety as related to land use and land use compatibility. In addition, ALUCs (or their alternative local decision-making bodies) make compatibility determinations for compliance of all proposed development around an airport (California Department of Transportation, 2007).

**Kern County**

The Kern County ALUCP was adopted in 1996 and has since been amended to comply with Aeronautics Law, Public Utilities Code (Chapter 4, Article 3.5) regarding public airports and surrounding land use planning. As required by that law, proposals for public or private land use developments within defined airport influence areas are subject to compatibility review. The principle airport land use compatibility concerns addressed by the plan are (1) exposure to aircraft noise; (2) land use safety with respect to both people and property on the ground and the occupants of aircraft; (3) protection of airport air space; (4) general concerns related to aircraft overflights. The ALUCP includes policies and compatibility criteria that are related to a map with influence zones or planning area boundaries labeled A, B1, B2, C and D. (Table 2A in the Code). These zones range from the most restrictive (A-airport property-runway protection zone) to the least restrictive (D-disclosure to property owners only).

The Kern County ALUCP, which was originally adopted by the County Board of Supervisors in 1996 and most recently amended in 2008, is a guidance document for the regulation of land uses around the public use airports found in the County. The document supplements the County’s General Plan and the specific area plans or general plans associated with specific cities in which public use airports reside.

The ALUCP identifies the following:
- properties on which the land uses could be affected by present or future aircraft operations at the airports included in the plan;
properties on which the land uses could affect operations at the airports (specific influence areas); and
properties underlying military aviation flights, including military aircraft and weapons.

The Kern County ALUCP has been developed and adopted at a local level, including Kern County and the incorporated cities of Bakersfield, California City, Delano, Shafter, Taft, Tehachapi and Wasco (Kern County, 1996). The geographic scope for the compatibility review policies and supporting compatibility review criteria contained in the ALCUP apply to the following airports:
- Bakersfield Municipal Airport
- Mojave Airport
- California City Airport
- Mountain Valley Airport
- Delano Municipal Airport
- Poso-Kern Airport
- Elk Hills – Buttonwillow Airport
- Rosamond Skypark
- Inyokern Airport
- Shafter Airport-Minter Field
- Kern Valley Airport
- Taft-Kern County Airport
- Lost Hills Airport
- Tehachapi Airport
- Meadows Field
- Wasco-Kern County Airport

In addition to the above, the ALUCP addresses military aviation operations associated with Edwards Air Force Base, the China Lake Naval Aviation Weapons Station, and the Joint Service Restricted Airspace R-2508 Complex (Kern County, 1996). The ALUCP defines a suite of six influence zones surrounding each airport that relate to the noise and safety risks associated with the types of operations that occur within them. The land use compatibility criteria for each of these influence zones is identified (including prohibited uses, normally acceptable and normally not acceptable uses), along with the development conditions (such as the use of aviation easements) for proposed development (Kern County, 1996). For each airport addressed in the ALUCP, information related to its specific operations and features is provided, including noise contour maps and maps depicting its influence zones.

*Kern County Airport Land Use Compatibility Plan, Revised September 2008*

**Section 1.0 General Applicability**

**Section 1.7.1(c).** Prior to the approval of a proposal involving any type of land use development, as stated in Section 1.6.1, or other review as required by a Specific Plan, specific findings shall be made that such development is compatible with the training and operational missions of the military aviation installations. Incompatible land uses that result in significant impacts on the military mission of Department of Defense installations or to the Joint Service Restricted R-2508 Complex that cannot be mitigated, shall not be considered consistent with this plan.

**Section 3.3 Airspace Protection**

**3.3.1 Height Limits.** The criteria for limiting the height of structures, trees, and other objects in the vicinity of an airport shall be set in accordance with Part 77, Subpart C, of the FAA Regulations and with the United States Standard for Terminal Instrument Procedures (TERPS).

**3.3.4 FAA Notification.** Proponents of a project which may exceed a Part 77 surface must notify the Federal Aviation Administration as required by FAR Part 77, Subpart B, and by the California state
Public Utilities Code Sections 21658 and 21659. (Notification to the Federal Aviation Administration under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Refer to Appendix A for the specific Federal Aviation Administration notification requirements.)

a) Local jurisdictions shall inform project proponents of the requirements for notification to the Federal Aviation Administration.
b) The requirement for notification to the Federal Aviation Administration shall not necessarily trigger an airport compatibility review of an individual project by the local agency (county or city) if the project is otherwise in conformance with the compatibility criteria established herein.

3.3.5 Other Flight Hazards. Land use characteristics which may produce hazards to aircraft in flight shall not be permitted within any airport’s influence area. Specific characteristics to be avoided include:

a) Glare, distracting lights, or light patterns which could be mistaken for airport lights;
b) Sources of dust, steam, or smoke which may impair pilot visibility;
c) Sources of electrical interference with aircraft communications or navigation;
d) Any use, especially landfills and certain agricultural uses, which may attract large flocks of birds; and
e) Any light or series of lights which may cause visual discomfort or loss of orientation during critical phases of flight.

Section 4 Individual Airports: Policies, Compatibility Map and Background Data

4.17 Military Aviation

4.17.2 Encroachment. Because of the extreme flying capabilities and needs of military aircraft, military officials have concerns about land development that compromises the mission of the installations. The concern for encroachments on military aviation involves balancing the need to preserve the present and future light operation capabilities to meet mission requirements with the public health, safety, quality of life and economic stability of neighboring communities. The following are identified areas to be reviewed for compatibility issues:

3. Towers - Obstructions such as cellular towers, radio towers, television towers and wind turbines that penetrate into airspace become a hazard to flight safety. Concentrated numbers of such structures can result in the loss of a route as useable for testing and training operations.

4.17.3 Notification. China Lake Naval Air Weapons Station (NAWS) and Edwards Air Force Base (AFB) both shall be notified of development that falls within any of the following categories:

- Any structure within 75 miles of the R-2508 complex that is greater than 50 feet tall.
- Any project within 50 miles of R-2508 that emit radio and communications frequencies.
- Any environmental document or discretionary project within 25 miles of the military installation boundaries.
- Any project that would create environmental impacts (e.g. visibility, elevated obstructions) within 25 miles of the R-2508 complex.

Los Angeles County

Pursuant to Section 21670.2 of the California Public Utilities Code (Chapter 4, Article 3.5), the Los Angeles County Regional Planning Commission has the responsibility for coordinating airport planning of public agencies and adopting an ALUCP (California Environmental Resources Evaluation System,
2007). In December 1991, abbreviated land use compatibility plans for 15 public-use and joint-use airports located in Los Angeles County were adopted. However, realizing the need for a more comprehensive set of airport land use compatibility policies, in 2002 a process to update these plans over a period of several years, subject to funding availability, was initiated (Los Angeles County Regional Planning Commission, 2007). In order to maintain as much consistency as practical among the various plans as they are updated, the update process calls for formatting the compatibility plan for each airport in two documents. The first document, the Los Angeles County Airport Land Use Commission Review Procedures, sets forth the review procedures and other policies that are generally applicable to all of the airports in Los Angeles County. This document was completed and adopted in December 2004 (Los Angeles County Regional Planning Commission, 2007). The second document, as completed, will be specific to each of the 15 public-use and joint-use airports, including:

- Agua Dulce Skypark
- Brackett Field (La Verne)
- Burbank Airport
- Catalina Airport-in-the-Sky
- Compton Airport
- El Monte Airport
- General William J. Fox Airfield (Lancaster)
- Hawthorne Airport
- Los Angeles International Airport
- Long Beach Municipal Airport
- Palmdale Regional Airport
- Santa Monica Municipal Airport
- Torrance Municipal Airport
- Van Nuys Airport
- Whiteman Airport (Pacoima)

The preparation and adoption schedule for each of these airport-specific documents will vary; however, each document will contain all of the applicable land use policies and compatibility criteria contained within the Los Angeles County Airport Land Use Commission Review Procedures.

General William J. Fox Airfield Land Use Compatibility Plan
The policies set forth in the General William J. Fox Airfield Land Use Compatibility Plan establish the criteria applied by the County and affected local jurisdictions for evaluating the compatibility of proposed development in the airport vicinity. The plan is to be used in combination with the ALUC’s county-wide Review Procedures. The airport-specific plan addresses issues associated with noise, safety, airspace protection, overflight areas, and the potential effects of proposed development on airport operations.

Palmdale Airport Land Use Compatibility Plan
At this time, the County has not prepared a specific Land Use Compatibility Plan for the Palmdale Regional Airport, but an Airport Influence Area (AIA) has been established for it, and proposed development would be subject to the County-wide Review Procedures.

Air Installation Compatible Use Zone Study
The Air Installation Compatible Use Zone (AICUZ) Study provides extensive analysis on the effects of aircraft noise, aircraft accident potential, and land use development upon present and future land uses in the vicinity of the Palmdale Regional Airport (call sign PMD). The AICUZ identifies military clear zones (CZs) and accident potential zones (APZs) for runways 7/25 and 4/22. The CZ, which is located at each runway end, represents the area at the highest risk of experiencing aircraft accidents. (The CZs presented in the AICUZ Study coincide with the RPZs identified by the ALUCP for PMD.) APZs I and II, which extend beyond the CZ, represent diminishing levels of risk for aircraft accidents, yet 60 percent of Air Force accidents occur within these three zones.
3.0 PROJECT AREA OVERVIEW

The BRRTP area includes numerous jurisdictions, land use types, and landscapes within portions of Los Angeles and Kern Counties, California (refer to Appendix B). The Kern County/and Los Angeles County line bisects the Antelope Valley. The geography of the area is diverse, containing mountainous areas, agricultural lands, and desert areas. The BRRTP area includes public lands administered by the BLM Ridgecrest Field Office, and NFS lands administered by the ANF. Private lands generally comprise the remainder of the BRRTP area. Other lands found within, or in proximity to, the BRRTP area include those administered by the Department of Defense (DoD), California Department of Transportation (Caltrans), California Department of Fish and Game (CDFG), California Department of Parks and Recreation, California State Lands Commission, and various local governments.

Existing land uses include residential, commercial, mixed use, industrial, public and institutional, transportation, communication, and utilities, open space and recreation, non-urban/agriculture, and military. Edwards AFB, a major testing, research, and development facility, is also located in the area.

Incorporated communities within, or in proximity to, the BRRTP area consist of California City, Lancaster, Palmdale, Santa Clarita, Los Angeles, and San Fernando. Unincorporated communities and population centers include Mojave, Willow Springs, Rosamond, Agua Dulce, Antelope Acres, Bouquet Canyon, Canyon Country, Castaic, Castaic Junction, Del Sur, Elizabeth Lake, Green Valley, Lake Hughes, Leona Valley, Mint Canyon, Neenach, Newhall, Quartz Hill, Saugus, Valencia, Vasquez Rocks, residential subdivisions, and rural-residential related agricultural areas.

The area has seen much growth and annexation over the last 20 years, such as the incorporation of the City of Santa Clarita and the expansion of the cities of Palmdale and Lancaster, especially along the Highway 14 corridor. Significant urbanization can be seen in the Santa Clarita, San Fernando, and Antelope Valleys.

Highways and roads include Interstate highways, U.S. highways, State highways and secondary roads, county and other local roads, and USFS and BLM roads.

General Plan land use designations in Kern County are predominately Intensive and Extensive Agriculture, Resource Management, and Residential. In northern Los Angeles County, the predominant General Plan land use designations include Agriculture, Residential, and Urban Mixed Categories. Suitable land uses within the ANF have been established through land use zones. These zones include: DAI, BC, BCMUR, BCNM, and CB. In addition to these land use zones, the ANF has been divided into geographical units called “Places.” Each Place has a theme, setting, desired condition and management program emphasis.
4.0 INVENTORY METHODS

The goal of the land use inventory was to identify, map, describe, and document the existing, planned, and designated land uses within the Segment study corridors. Data was compiled within a one-mile wide study corridor, 1/2 mile on each side of the assumed centerline of each Segment. The data inventories facilitated the assessment of potential land use impacts from the construction and operation of the BRRTP.

Initially, base maps were prepared at a scale of 1:12,000. Land use data collected from a number of environmental studies in the region were reviewed, refined, and updated. Existing maps from a variety of sources were collected and included in the inventory, as appropriate. Agency land and resource management and planning documents were reviewed for applicable data and land management regulations and policies. On-line database searches of the BLM LR2000 system were also conducted.

Following this initial step in the inventory, key federal, state, and local land and resource management agencies were contacted to update information and to solicit further input. Contacts were established by telephone, letter, e-mail, or personal interview. These data were compiled and mapped utilizing a geographic information system (GIS). National Agriculture Imagery Program (NAIP) 2005 color aerial photography, and national, state, and local agency GIS data layers were utilized to identify and more accurately assess surface land uses and land cover types. Field investigations were conducted to verify and supplement selected existing land uses during September 2007 and from September 2008—May 2009.

A description of existing land uses were identified within the segment study corridors to present an overview of the land uses near the transmission line alternatives. These segments were then combined to create end-to-end routing “alternatives” as discussed in Section 7.2.
5.0 AFFECTED ENVIRONMENT

This section presents information regarding land uses through a study corridor and vicinity context. The land use study was divided into three major components to facilitate the inventory and analysis of surface land uses, legislative designations, and land management programs/policies:

- Land jurisdiction
- Land use and Agricultural Resources
- Recreation

The land jurisdiction component identifies the primary owner or administrator of the lands. The individual holdings of private landowners were not specifically identified.

The land use and agricultural resources component identified the physical surface uses and legal designations by the landowner or administrator. This component also included uses of land to be carried out in the future or as guided by local land use plans. Planned uses of state and federal lands are typically guided by land or resource management plans.

The recreation component identifies areas where the established or proposed land use is primarily for recreational enjoyment or to protect and preserve a valuable environmental resource. Most of these areas are managed by federal, state, or local governmental agencies for public use.

Tables 7.1-1 through Table 7.1-4 found in Appendix A identify, milepost by milepost, specific land uses along the assumed centerlines of the segments. Two inventory maps were generated to portray information relating to the following components: Existing and Planned Land Use (Appendix B, Figure 1) and Parks, Recreation, and Preservation Areas (Appendix B, Figure 2).

5.1 PROJECT AREA SETTING

5.1.1 Land Jurisdiction

Both public and private lands are found in the BRRTP area. Of the public lands, most are managed by the BLM, USFS, California State Lands Commission, California Department of Parks and Recreation, and California Department of Fish and Game.

Federal

Scattered parcels of public lands within the study corridors are administered by both the BLM Ridgecrest and Palm Springs South Coast Field Offices. Public lands managed by the Ridgecrest Field Office are crossed by Segment A. The BLM grants land use authorizations which allow for private entities to use public lands for specific purposes.

Land use authorizations exist within the study corridors (Table 5-1). Reports generated through the use of BLM’s Land & Mineral Legacy Rehost 2000 System – LR2000, identified 19 such land use authorizations (authorized and pending).

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<td>Pending</td>
<td>First Solar Development Inc – ROW-Solar Dev Fac</td>
</tr>
<tr>
<td>CACA 048871</td>
<td>Pending</td>
<td>Los Angeles Dept Water &amp; Power – ROW-Power Tran-FLPMA</td>
</tr>
<tr>
<td>CACA 049576</td>
<td>Pending</td>
<td>Power Partners Southwest LLC – ROW-Solar Dev Fac</td>
</tr>
<tr>
<td>CACA 008183</td>
<td>Authorized</td>
<td>BLM CAL SO – WDL-Stock Driveway</td>
</tr>
<tr>
<td>CACA 008184</td>
<td>Authorized</td>
<td>BLM CAL SO – Small Tract Class</td>
</tr>
<tr>
<td>CALA 0088876</td>
<td>Authorized</td>
<td>Los Angeles Dept Water &amp; Power – ROW-Misc &amp; Special</td>
</tr>
<tr>
<td>CALA 0119205</td>
<td>Authorized</td>
<td>Continental Telephone Co of CA - ROW-Telephone-Telegraph</td>
</tr>
</tbody>
</table>
The USFS manages the ANF, which is also within the study corridors. Special Use Permits authorize the occupancy and use of NFS land by private individuals or companies for a wide variety of activities, such as recreation residence tracts, public and private road rights-of-way, apiaries, domestic water supply conveyance systems, telephone and electric service rights-of-way, oil and gas pipeline rights-of-way, communications facilities, hydroelectric power-generating facilities, and other private or commercial uses, that cannot be accommodated on private land. Some parcels of land within the ANF are privately held and do not fall under the jurisdiction of the USFS.

State

The California State Lands Commission (CSLC) has jurisdiction over some of the land within the study corridors, the majority as school trust parcels.

The State of California also maintains a registry of conservation easements held or required by the State, or purchased with State grant funds on or after January 1, 2000. Data on easements are provided by the California Department of General Services and those agencies involved with the purchase, funding or requiring of conservation, open-space and agricultural easements. At the discretion of the participating agencies, this registry may contain data on easements recorded before 2000. Easements in the registry may or may not be accessible to the public. Many conservation easements do not provide for or require public access due to concerns for sensitive species, existing agricultural operations, ongoing flood control operations, and the lack of trails and other public safety and accessibility accommodations.

Local

Transmission line segments pass through the counties of Kern and Los Angeles. Lands held in private ownership are also found in large amounts within the study corridors. Much of these private lands are located in incorporated cities and in the Antelope and Santa Clarita valleys. Unincorporated communities provide concentrations of small private parcels with a mixture of residential and commercial development. Right-of-way easements on private lands would be acquired through negotiations with landowners.

5.1.2 Switching Station

New Haskell Canyon Switching Station

The proposed new Haskell Canyon Switching Station site is located in an unincorporated portion of Los Angeles County, northerly of the City of Santa Clarita, in the Bouquet Canyon area of the Santa Clarita Valley. The site is situated on LADWP land generally west of Pettinger Canyon and north of Dry Canyon Reservoir near the southern border of the ANF. The subject parcel is relatively flat, with gently sloping hills situated immediately to the north, south, east, and west. The area around the switching station site is designated as Back Country by the USFS. Land to the north and west is vacant and undeveloped with the
exception of LADWP transmission lines traversing horizontally and diagonally across the property. Paralleling the LADWP transmission lines is an unpaved maintenance access road. USFS roadways are also present, allowing access to and egress from the site. In addition, two (2) Veluzat Movie Ranch leasehold properties are situated within the limits of the ANF, generally east and west of the switching station site. A third Veluzat Movie Ranch (Blue Cloud) is located to the southeast.

Recent growth in the Santa Clarita Valley has caused new residential nodes to expand northward towards the southern boundary of the ANF, and the nearest subdivision is located approximately 0.5 mile southwest of the proposed switching station site.

The site does not contain State-designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. There are no agricultural productions or grazing activities currently on-site.

**Expansion of Barren Ridge Switching Station**

The Barren Ridge Switching Station and proposed expansion area are located within unincorporated Kern County. The switching station would be expanded and upgraded to accommodate new 230 kV transmission connections. The proposed area for the expansion to the existing Barren Ridge Switching Station is currently undeveloped open space. Existing land uses within 0.5-mile of the Barren Ridge Switching Station includes vacant and electrical power facilities. BLM public lands are situated west and north of the expansion area. There are no formal recreational facilities, areas, or uses in the vicinity of the expansion area.

**5.1.3 Land Use and Agricultural Resources**

**Residential**

Kern County

The largest residential category within the BRRTP area is rural residential. Residential parcel sizes tend to become larger as the distance from incorporated areas or unincorporated urban community areas increases.

Rural residential land uses are generally found on parcels ranging from two and one-half acres to over 20 acres. These parcels may carry an Estate (E) or Limited Agriculture (A-1) zone district. Such classifications may also be applied to properties in recreational/second home communities; these parcels may include the Residential Suburban (RS) combining district. The rural residential designation is applied primarily to minimize division of large parcels of land. In desert areas, much of the land was originally zoned for 20-acre minimum parcel sizes to help regulate speculative land divisions that were prevalent in the early 1960s.

Of note is the presence of the Willow Springs Specific Plan (WSSP) area. The WSSP (adopted in 1992) is located in the southwest Kern County portion of Antelope Valley. The 16-by-6-mile, 50,560-acre plan area is six miles west of Rosamond and is bounded on the south by Avenue “A” (Los Angeles/Kern County Line), on the east by the alignment of 50th Street West, and on the north by a township line which is the projection of Dawn Road. The westerly boundary is a section line (190th Street West) and a northeast trending desert trail (State Road 5381 that roughly parallels the Los Angeles Aqueduct).

The Willow Springs area is open, primarily undeveloped and consists of desert flora and agriculture. Onions, sugar beets, carrots, and alfalfa are predominately grown commercially in the region. A 700-foot-high butte is the most prominent feature of the landscape, but the overall topography slopes less than five percent from 3,000 feet down to 2,400 feet above mean sea level. Present structural development consists of a number of residences scattered throughout the area along with limited commercial services. Other land uses include a motor racetrack, poultry farms, private airstrips, and ore mining.
Although very little physical development has taken place in Willow Springs, much of the land has been subdivided without a uniform plan of land use development or circulation. Absentee owners hold 85 to 90 percent of the land divisions, which range in size from one to 20 acres and larger throughout the plan area. There are in excess of 5,000 existing parcels in the Project area. Speculative subdivision of the land has created a situation whereby there are a number of landowners in Willow Springs, but only a small amount of actual residents. The existing land division pattern reflects the existing zoning classification, established in 1970, of E (2 1/2) RS (formerly A-1 and A-2), which allowed areas with a combining zone to allow large animals.

Most land divisions in Willow Springs occurred prior to the 1973 Kern County General Plan and 1973 Parcel Map Ordinance. Overall, there are 12 tracts and 28 records of survey tracts in the plan area. Since 1973, approximately 136 parcel maps have been recorded.

Currently, there are no parks or community buildings within the WSSP area. Main roads serving the area are Avenue “A,” Tehachapi-Willow Springs Road, and Rosamond Boulevard.

The WSSP is anticipated to be a long-term plan with development occurring well into the next century. Ultimate build-out of the plan will be determined by market demand, availability of financing, and provision of infrastructure. Future market conditions may either accelerate or delay implementation of the plan.

Los Angeles County

The 1986 Antelope Valley Areawide General Plan anticipates that most urban growth in Los Angeles County would continue near the urban centers of Lancaster and Palmdale. Quartz Hill is the largest of the unincorporated communities and the plan recognizes the predominately semi-urban character of the area by designating moderate residential densities for the areas already so developed, and lesser densities to the northeast and southwest of the community. In addition, the General Plan provides for the protection of the existing rural low-density lifestyle of several rural communities including Lake Hughes-Elizabeth Lake and Leona Valley. Several very low-density rural villages, such as Juniper Hills and Antelope Acres, are scattered throughout the Antelope Valley. Single-family residential uses are also located in Castaic and the communities of Agua Dulce, Neenach, and Bouquet and San Francisquito Canyons.

City of Santa Clarita

Within the City of Santa Clarita, residential areas are located northwest of Bouquet Canyon Road, in the northeast portion of the City, and in Newhall. There are pockets of multi-family residential uses scattered throughout the City with a high concentration of multi-family uses located near the intersection of the Antelope Valley Freeway (State Route 14) and Soledad Canyon Road.

The current July 2001 Sphere of Influence (SOI) designation follows the City’s southernmost boundary. The SOI expands the current City boundary to the north from Copper Hill Drive to where it meets the Angeles National Forest boundary. The SOI encompasses many of the canyons that lie north of the current City boundary and extends approximately two miles east of the City’s easternmost limits.

City of Lancaster

Urbanized development in the city is located in the area surrounding the Quartz Hill community. The approval of large-scale developments in the western portions of the city has “set the stage for the development of several isolated nodes” (City of Lancaster General Plan, 1997). The Plan notes, “There is a considerable amount of undeveloped land between these development nodes and the urbanized areas of the City.” These undeveloped lands are generally divided into 2.5 and 5.0-acre parcels, a land pattern that makes infill difficult. An area of mixed land uses is found in South Lancaster. Rural residential communities are found in the outlying areas of the city.
City of Palmdale
Located south of the City of Lancaster, the developed portions of the City of Palmdale occupy an area generally bounded by the California Aqueduct on the south and 70th Street West on the west. The northern extent of urban development in Palmdale follows an irregular path from Avenue M in the northwest portion of the City, around existing rural residential areas in the north, and south of the airport land along Avenue P.

Two partially constructed large Specific Plan Development areas (Ritter Ranch and City Ranch [Anaverde]) are located in the southwestern portion of the City. Development of the 10,625 acre Ritter Ranch has been through phases. Phase I construction includes approximately 800 housing units, two proposed commercial centers, three parks, open space, and one elementary school. The northern boundary of the Ritter Ranch Specific Plan is delineated by the Amargosa Creek drainage and Elizabeth Lake Road. Anaverde is a large residential development located east of and adjacent to Ritter Ranch. The master planned community has approximately 5,200 housing units and occupies 1,985 acres. Fifty percent of the area is designated residential.

Specific Plans
As permitted by state planning law and guidelines (Government Code 65450 et seq.), cities and counties are permitted to prepare and adopt specific plans to address both large-scale development proposals and the unique characteristics of sites. Specific plans must be consistent with local general plans but may augment or supplement development standards found in the local zoning ordinance. The following Specific Plans are either traversed by, or within, a Segment study corridor, and therefore considered in this study:

- Ancient Valley Specific Plan, Kern County, traversed by Segment B
- Centennial Specific Plan, Los Angeles County, traversed by Segment D
- City Ranch Specific Plan (a.k.a. Anaverde Specific Plan), City of Palmdale, traversed by Segment I
- Del Sur Ranch Development, City of Lancaster, within Segment F2 study corridor
- Joshua Ranch Specific Plan, City of Palmdale, within Segment I study corridor
- Mojave Specific Plan, Kern County, traversed by Segments A, B, and C
- Ritter Ranch Specific Plan, City of Palmdale, traversed by Segment I
- Soledad Mountain Specific Plan, Kern County, traversed by Segment B
- Willow Springs Specific Plan, Kern County, traversed by Segments B, C, and E

Subdivisions
Land cannot be divided in California without local government approval. Dividing land for sale, lease or financing is regulated by local ordinances based on the State Subdivision Map Act (commencing with Government Code, Section 66410). The local general plan, zoning, subdivision, and other ordinances govern the design of the subdivision, the size of its lots, and the types of required improvements, such as street construction, sewer lines, and drainage facilities.

There are two types of subdivisions:
- Parcel maps, which create fewer than five new lots
- Tentative subdivision maps (also called tract maps), which create five or more new lots

Applications for both types of subdivisions must be submitted to the local government for consideration. Subdivision ordinances set forth the minimum requirements deemed necessary to protect the health, safety, and welfare of the public.

Subdivisions (approved/recorded and pending) crossed by the segments are found in Table 7.1-3 (Planned Land Use) in Appendix A. The approximate number of residences within 1,000 feet of the segments are also presented in Table 5-2 below. This information is provided since residents within 1,000 feet of
construction may adjust, limit, or cease some of their daily routines and activities in response to this activity. In addition, access to and from residential properties may conflict with their daily schedules and routines.

### Table 5-2. Number of Residences within 1,000 Feet of the Segments

<table>
<thead>
<tr>
<th>Segment</th>
<th>Residences within 1,000 Feet</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>B</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>69</td>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>F1</td>
<td>0</td>
</tr>
<tr>
<td>F2</td>
<td>2</td>
</tr>
<tr>
<td>115th</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>98</td>
</tr>
<tr>
<td>2a*</td>
<td>2</td>
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<tr>
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<td>4</td>
</tr>
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<td>H2</td>
<td>3</td>
</tr>
<tr>
<td>I</td>
<td>234</td>
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<td>J</td>
<td>12</td>
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<tr>
<td>ABG</td>
<td>159</td>
</tr>
<tr>
<td>K</td>
<td>1979</td>
</tr>
</tbody>
</table>

*Segment 2a was added at a later date and is further discussed in Section 6.3.9.

### Commercial, Public/Quasi-Public, Industrial

Commercial, public/quasi-public, and industrial development in the study corridors are primarily found in or around incorporated and unincorporated communities as well as along the Soledad Road and Sierra Highway Corridors. Commercial microwave, cellular and radio towers are generally located in and around communities, along major roadways, and on mountain peaks. The Neenach School (closed in 2001) and adjoining soccer field are situated in the Segment D study corridor. Industrial uses include business parks and light manufacturing uses located in Castaic and along the Sierra Highway. Oil wells are located in the Placerita Canyon area. This area has also been identified as an area susceptible to change. It is anticipated that the operation of oil derricks will cease over the next 10-15 years. As such, there is potential for redevelopment of the area if soil remediation is cost-efficient. Extension of the Santa Clarita Parkway would provide improved access to the area.

Film production is another activity which occurs within the study corridors. Three movie ranches (Veluzat Motion Picture Ranch, Blue Cloud Movie Ranch and S.O.S. FilmWorks-Agua Dulce Movie Ranch) are located within the study corridors. The existing 750-acre Veluzat Motion Picture Ranch is crossed by Segment H2. The ranch operates as an active studio, and has been used for a number of feature films, television shows, and music videos. The outdoor sets available at the motion picture ranch include a Spanish town set, a 1950s period town set, army camps, ranch houses, cabins, and barns. The natural scenery is also advertised as an integral element of the sets, and includes desert, pine forests, an open area mesa, meadows, and a lake.

Blue Cloud Movie Ranch is a movie ranch located in the Santa Clarita Valley. Sets available include an Afghanistan set, Mexican town set, Army camp, ‘50s town, rustic gas station, farm house, barn, military vehicles, Army helicopters, and water trucks,

S.O.S. FilmWorks is one of more than 73 properties managed by the Agua Dulce Movie Ranch for specific use by the film industry. S.O.S. FilmWorks is a 174 acre filming site, consisting of flat topography. Extensive infrastructure exists at the site, including a 360,000 gallon water tank, electrical
conduit, more than 10 concrete pads, fire hydrants and gated access on asphalt roads. Other features of the property include two dirt runways, a one acre lake/pond which also features a hobo shack, a 100 acre arroyo area, a five acre forest area, a heliport facility, and multiple dirt and paved roads. The property is crossed by Segment I.

The study corridors also contain electrical transmission lines owned and operated by LADWP and SCE as well as numerous sub-transmission and distribution lines (both aerial lines and buried cable), petroleum pipelines, and other utility features. Other utility features include long distance and local telephone aerial wires, buried copper and fiber optic cables, aerial and buried cable television lines, gas lines, and domestic water lines. As presented in the West-wide Energy Corridor Programmatic EIS, energy corridors are designated on federal lands through southern California. These corridors have been designated for oil, gas and hydrogen pipelines, and electricity transmission and distribution facilities. Within the study corridors, a multi-modal corridor (Corridor 23-106) traverses BLM public lands and an electric-only corridor (Corridor 264-265) traverses NFS lands (Angeles National Forest).

The California Aqueduct, part of the State Water Project, traverses the Project area mostly underground and in a primarily north-south direction. In addition, the Antelope Valley-East Kern Water Agency (AVEK) proposes to construct and operate a groundwater recharge and recovery program, with recharge facilities located on approximately 1500 acres of land it owns in Los Angeles County. That proposed project is partially located within Segment E of BRRTP.

The AVEK project will consist of recharge areas with internal wells and pipelines to recover water. AVEK’s State Water Project supplies will be delivered from the California Aqueduct to the site via gravity flow using AVEK’s existing West Feeder pipeline, which runs north-south through the property along 140th Street West. Delivery of the water to the recharge areas will be by permanent below ground pipelines. Delivered supplies will be spread across the surface of the land, will percolate into the soil, and be stored. When needed, the stored water will be extracted using pumps, delivered to the West Feeder via internal buried pipelines, and then delivered to AVEK customers north and east of the recharge area via the West Feeder pipeline. The proposed project also provides for recovered raw water to be delivered to a storage, treatment and pumping facility in the vicinity of the intersection of Gaskell Road and 80th Street West via a buried pipeline.

Recharge would generally be accomplished from November through February, when AVEK has the greatest capacity in the California Aqueduct and its other facilities to convey water to recharge.

Agricultural Resources

Segments would be located across or adjacent to designated Farmland. Farmland is classified by the Department of Conservation Farmland Mapping and Monitoring Program (FMMP) to include Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. The majority of Farmland and cropland traversed is located in the Antelope Valley in southern Kern County (Segments B and E) and northern Los Angeles County (Segments E and G). Crops grown include potatoes, oats, alfalfa, barley, carrots, green onions, and dry onions. Irrigation of croplands utilize flood, pivot, wheel and hand line methods. Dryland farming is minimal. Segments C and E traverse land under Williamson Act contracts.

Horse ranches, non-irrigated croplands, and improved pasture lands are also located along San Francisquito Canyon and Bouquet Canyon Road. Active orchards can be found along Bouquet Canyon Road and in other areas.

The Antelope Valley Resource Conservation District (AVRCD) Nursery is also situated in a study corridor. As part of its program, the AVRCD owns and operates a conservation nursery that provides desert-grown and adapted plants to the public, government agencies, and private organizations.
Livestock grazing occurs on BLM public lands managed by the Ridgecrest Field Office as well as on certain private lands. Segment A traverses a portion of the Hansen Common Grazing Allotment. Table 5-3 presents information for this grazing allotment.

### TABLE 5-3. GRAZING ALLOTMENT INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Acres</th>
<th>Active AUMs</th>
<th>Range Type</th>
<th>Livestock</th>
<th>Season of Use</th>
<th>Multiple Use Class (M, I &amp; C)</th>
<th>AMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hansen Common</td>
<td>34,848</td>
<td>72,102</td>
<td>354</td>
<td>E/P</td>
<td>12/1-9/30 M</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

1. Acres of Public Land in the grazing allotment.
2. The acres of private, State, BLM, and other ownerships that comprise the area of the grazing allotment.
3. Allotments with ephemeral and perennial (E/P) forage have a mixture of both range (forage) types.
4. The period livestock typically graze forage on the allotment. Grazing use on some allotments is authorized to occur all year long. The grazing period of use does not apply (NA) to ephemeral allotments because grazing use occurs when forage is available.
5. Multiple Use Classes as designated by BLM. M = Moderate, I = Intensive, C = Controlled. See Section 2.1.3 for more information.

Agricultural resources that would be traversed by the Segments can be found in Table 7.1-2 (Agricultural Resources) in Appendix A.

### Military

Military facilities identified in the Project area include China Lake Naval Air Weapons Station and Edwards AFB. The China Lake Naval Air Weapons Station and Edwards AFB are located in an area referred to as “the R-2508 complex,” which is used for the advancement of weapons systems technology and tactical training.

The R-2508 Complex provides the largest single area of Special Use Airspace (SUA) over land in the United States, covering a land area of 20,000 square miles in eastern Kern, San Bernardino, Los Angeles, Ventura, Tulare, and Inyo Counties. The complex consists of restricted areas (R-2508, R-2502N, R-2502E, R-2505, R-2506, R-2515, and R-2524), 10 Military Operations Areas (MOA), Air Traffic Control Assigned Airspace (ATCAA) areas, Controlled Firing Areas (CFAs), and other special airspace, such as the CORDS Road, the Precision Impact Range Area, the Black Mountain Supersonic Corridor, the North Hypersonic Corridor, the South Hypersonic Corridor, and the Airfield Approach and Departure Corridors.

In addition to the China Lake Naval Air Weapons Station and Edwards AFB, other military installations use this air space, including the Fort Irwin Military Reservation near Barstow and Air Force Plant 42 at Palmdale.

### Air Facilities

Air facilities include public and private airports registered with the FAA. Other air facilities may exist as part of agricultural operations and may utilize sparsely traveled roads as take-off and landing strips. Twenty-one FAA registered air facilities within 20,000 feet of a land use study corridor were identified (Table 5-4).

### TABLE 5-4. FEDERAL AVIATION ADMINISTRATION REGISTERED AIR FACILITIES LOCATED WITHIN 20,000 FEET OF A LAND USE STUDY CORRIDOR

<table>
<thead>
<tr>
<th>Type</th>
<th>County</th>
<th>City</th>
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<th>Ownership</th>
<th>Use</th>
</tr>
</thead>
<tbody>
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<td>Airport</td>
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<td>Agua Dulce</td>
<td>Agua Dulce</td>
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<td>Public</td>
</tr>
<tr>
<td>Heliport</td>
<td>Los Angeles</td>
<td>Castaic Dam</td>
<td></td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>Airport</td>
<td>Los Angeles</td>
<td>Gorman/Lancaster</td>
<td>Quail Lake Sky Park</td>
<td>Private</td>
<td>Private</td>
</tr>
<tr>
<td>Airport</td>
<td>Los Angeles</td>
<td>Lancaster</td>
<td>Bohunk’s Airpark</td>
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<td>Private</td>
</tr>
<tr>
<td>Type</td>
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<td>--------------------------------------</td>
<td>-----------</td>
<td>--------</td>
</tr>
<tr>
<td>Airport</td>
<td>Los Angeles</td>
<td>Lancaster</td>
<td>Little Buttes Antique Airfield</td>
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<td>Private</td>
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<tr>
<td>Heliport</td>
<td>Los Angeles</td>
<td>Los Angeles</td>
<td>Dept. of Water and Power Granada Hills</td>
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<td>Private</td>
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<td>Newhall</td>
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<td>Heliport</td>
<td>Los Angeles</td>
<td>Pacoima</td>
<td>Barton</td>
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<td>Henry Mayo Newhall Memorial Hospital</td>
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</table>

Source: FAA, May 7, 2009

Segment A crosses two Mojave Airport Compatibility Zones (B2 and C). The Mojave Airport is operated by East Kern Airport District (EKAD). The EKAD is a special district with an elected Board of Directors and General Manager. The Mojave Airport was a former military base, and currently is the largest general aviation airport in Kern County. The Mojave Airport is contained in an area of approximately 3,000 acres. It serves as a Civilian Flight Test Center, the location of the National Test Pilot School, and as a base for modifications of major military jets and civilian aircraft. It is also a major aircraft storage and reconditioning facility and is home to several large industrial operations.

### 5.1.4 Recreation

The study corridors and region contain a number of outdoor recreational opportunities within areas owned and/or managed by federal, State, local and/or private entities (see Appendix B, Figure 2).

#### Federal

**Angeles National Forest**

Recreation is currently the predominant use of the national forests. Almost all visitations to southern California national forests are local in origin (Richer and others 2002). The ANF is located adjacent to the Los Angeles metropolitan area and is within a two-hour drive for more than ten million people. The ANF comprises more than 70% of the open space available for outdoor recreation in Los Angeles County. Recreation visitor days (RVDs) are used to measure recreational production or output capacity. Visitor use from the early- to mid-1980s on the ANF was reported at 5.5 million RVDs, where a single RVD equals to twelve visit hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons. In 1992, the USFS reported that the ANF was the second-highest ranked national forest (out of 141) in the nation for intensity of use (acres per RVD) at 0.071.

The largest single use of the ANF is characterized as day use. That is persons entering the ANF for a recreation visit that does not include an overnight stay. Recreation activity groups include anglers, boaters, equestrians, hikers, off-highway vehicle users, picnickers, sightseers, water players and persons participating in special events. The ANF is a year-round destination.

The ANF is divided into three separate ranger districts based upon natural watershed boundaries: the Santa Clara/Mojave Rivers Ranger District, the Los Angeles River Ranger District, and the San Gabriel River Ranger District. The Project area is located within the Santa Clara/Mojave Rivers Ranger District.
with recreational uses primarily accessed from Bouquet Canyon Road, Spunky Canyon Road, and San Francisquito Canyon Road.

Recreational resources and opportunities on NFS lands in the ANF are managed by the USFS as either Developed Recreation or Dispersed Recreation. Developed Recreation includes resources that are regularly maintained by the USFS such as OHV routes, trails (hiking, biking, and equestrian use), campgrounds, picnic areas, information centers, and other, similar facilities. Dispersed Recreation generally includes undeveloped open space areas that are used for recreational purposes but are not regularly maintained by the USFS.

ANF management of recreation resources, including Land Use Zones and Places, Recreation Opportunity Spectrum (ROS) designations, and High Impact Recreation Areas (HIRA), are discussed below followed by a discussion of developed and dispersed recreation resources and opportunities in the Forest.

Land Use Zones, Recreation Opportunity Spectrum, and Places
As discussed in Section 2.1.2, particular recreational activities and uses that are available on ANF lands are primarily determined by the Land Use Zones designated throughout the Forest. The recreational resources available in each of these zones vary in accordance with allowable access and development. Land use zones within the study corridors, by Segment include:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Land Use Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>BC, DAI, BCNM, BCMUR</td>
</tr>
<tr>
<td>G</td>
<td>DAI, BC</td>
</tr>
<tr>
<td>2a</td>
<td>BC, BCNM</td>
</tr>
<tr>
<td>H2</td>
<td>BC, DAI</td>
</tr>
<tr>
<td>I</td>
<td>BC</td>
</tr>
</tbody>
</table>

ANF Land Use Zones are relevant to recreation because management practices assigned to each designation determine the types of recreational uses available in that area.

Also described in Section 2.1.2 are “Places,” which are geographical units of different “landscape character,” described as an overall impression of landscape attributes, physical appearance, and cultural context of a landscape. Each place has a theme, setting, desired condition, and program emphasis. BRRTP segments lie within four of these Places, including the following: Liebre-Sawmill, Santa Clara Canyon, I-5 Corridor, and Soledad Front Country. Recreation uses within these Places are summarized below.

Liebre-Sawmill
Segments G and H2 are located in this Place. Developed recreation is limited, focusing mainly on water-based recreation (boating, fishing, picnicking) at the Elizabeth Lake Day-Use Facility. Dispersed Recreation is the emphasis within the Place. Hiking, backpacking, equestrian use, bicycling, mountain biking, hunting, and OHV use are the predominate activities. The PCT follows an east-west course through the entire Place.

Recreation uses and water extraction authorizations constitute the majority of the special uses for the area. Most facilities and trails are located along drainages, on flats, or cut into hillsides. A recreation residence tract (Lake Hughes) is present that is oriented toward the lake.

Santa Clara Canyon
Segments D, G, H2, and I are located in this Place. Developed recreation sites are limited, focusing mainly on remote camping and day-use facilities along the canyon bottoms. Dispersed recreation is the emphasis, including hiking, backpacking, equestrian, bicycling, mountain biking, hunting, and OHV use. OHV opportunities exist in designated areas. Other activities such as hunting and fishing occur. Water recreation is also present at Bouquet Canyon Creek. Special-use authorizations include recreation
residence tracts in Bouquet and San Francisquito Canyons and one concessionaire-operated shooting area (A Place to Shoot). The PCT also traverses land within this Place.

I-5 Corridor
Segment D is located in this Place. Hiking, backpacking, equestrian use, bicycling, mountain biking, hunting, OHV use, and water-based recreation are the most popular recreation activities occurring within this Place and require a support network of trails and roads. Recreation is centered at Pyramid Lake, with dispersed and developed recreation opportunities located in close proximity to major travel ways. Pyramid Lake offers year-round access to water-based recreation and also creates a downstream area for catch and release fishing. OHV opportunities exist within the Back Country Discovery Trail and an entrance to the Hungry Valley State Vehicular Recreation Area.

Soledad Front Country
Segment I is located in this Place. Trailheads and travel routes offer visitors year-round access to the ANF. Recreation opportunities, such as hiking the PCT and managed OHV areas, occur within this Place.

Recreation Opportunity Spectrum
In addition to the Forest Land Use Zones and Places described above, USFS management direction for recreational opportunities in the ANF is further specified by Recreation Opportunity Spectrum (ROS) classes, which are applied throughout the ANF. The 2005 Forest Land Management Plan (Forest Plan) uses ROS classes to plan for future management of recreation areas and resources in the ANF. The ROS is a framework for defining classes of outdoor recreation environments, activities and experience opportunities within the forest. The opportunities are arranged along a continuum or spectrum divided into five classes which define recreation opportunities within various areas of the forest. Table 5-5 provides a description of these ROS classes. Segments G and H2 are located within the semi-primitive, motorized and roaded natural settings, while Segment D is located within the semi-primitive, motorized, roaded natural and semi-primitive, non-motorized settings. Segment I is located in the semi-primitive, motorized setting.

| TABLE 5-5. USDA FOREST SERVICE RECREATION OPPORTUNITY SPECTRUM (2005) |
|---------------------------------|------------------------------------------------------------------|
| **Setting**                     | **Characterization**                                             |
| Primitive                       | Characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free of evidence of human-induced restrictions and controls. Motorized use within the area is not permitted. There are no developed facilities. |
| Semi-Primitive Non-Motorized    | Characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction among users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized recreation is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreation experience opportunities. A minimum of developed facilities (if any) are provided. |
| Semi-Primitive Motorized        | Characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present but would be subtle. Motorized use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motorbikes is permitted. Developed facilities are present but are more rustic in nature. |
Different types of recreational resources, activities, and opportunities are made available or restricted by USFS management practices, depending upon the applicable ROS class. Accordingly, any activity on NFS lands that conflicts with the applicable ROS class for that area may affect corresponding recreational opportunities that are intended to be available under the applicable ROS designation. No segments would traverse ROS areas designated as “Primitive.”

**High-Impact Recreation Areas**
In accordance with the Federal Lands Recreation Enhancement Act (REA) of 2004, the USFS has designated areas on NFS lands that experience concentrated use or higher rates of visitation as High Impact Recreation Areas (HIRAs). The chosen boundaries for each HIRA are based upon public usage of the area for recreational purposes and available amenities maintained by the USFS within each area, with the intention that HIRAs represent the areas of highest recreational usage and Developed Recreation opportunities in the Forest. Recreational users are required to purchase a National Forest Adventure Pass or an America the Beautiful Interagency Pass in order to use recreational resources within a HIRA. The purpose of this fee-based program, as authorized under the Federal REA, is to generate necessary funding to pay for backlogged maintenance of recreational resources throughout the Forest. Backlogged maintenance includes maintaining trails, cleaning restrooms, picking up trash, removing litter and graffiti, providing visitor information, and fulfilling other services as needed.

Segments G and H2 traverse the Rowher/Drinkwater HIRA. A USFS-operated campground (Streamside) is also located within this HIRA. With the exception of the San Gabriel OHV area on the ANF, an Adventure Pass or Interagency Pass would be required for recreation use of this HIRA.

Developed and Dispersed Recreation resources within the study area are described in further detail below.

**Developed Recreation**
Developed Recreation resources are actively maintained by the USFS and experience high levels of usage by public recreationists. Developed recreation facilities offer recreation experiences, protect resources or otherwise manage visitor activities. Developed recreation facilities include campgrounds, trailheads, designated OHV roads and trails, picnic or other day use areas, non-motorized trails, and concessionaire operated sites. Recreation impacts to developed recreation resources are presented in Table 7-1.

**Off-Highway Vehicle Trails and Open Riding Areas**
The USFS has designated an interconnected system of OHV trails, forest roads designated for OHV use, and Open Riding Areas throughout the ANF, thus providing a range of recreational opportunities to OHV recreationists of all skill levels. For the safety of OHV recreationists, OHV use is not permitted on the same roadways as passenger vehicle travel. The types of vehicles that are permitted on USFS roads are defined by one of five Operational Maintenance Levels (OMLs) that are assigned to each USFS roadway. OMLs are guidelines for the degree of maintenance that the USFS invests in a road, towards the purpose...
of managing each road and the surrounding NFS lands for their intended uses. The USFS’s OMLs applicable to the ANF are presented in Table 5-6.

Under special circumstances, OHV use may be permitted on an OML 3 roadway, providing that a Mixed Use Traffic Study has been completed to assess the safety risks involved with OHVs and passenger vehicles utilizing the same road. However, under normal circumstances, OHVs are restricted to OML 2 roads, thus avoiding hazards to OHV users that are created by the presence of larger vehicles on OML 3, 4, and 5 roads.

In comparison with designated OHV roads (OML 2 roads) and trails, which interconnect throughout the Forest, Open Riding Areas are designated areas where OHV recreationists are permitted to drive off trails. Rowher Flats OHV Area includes three OHV Staging Areas, which are where OHVs may be dropped off by their transport vehicles, which can also park in the Staging Area if a valid recreation pass is displayed. There are three designated Open Riding Areas in the ANF; however, none of these Open Riding Areas are located within a study corridor.

OHV areas within or adjacent to a study corridor include Rowher Flat and Drinkwater Flat. Rowher Flat consists of approximately 47 miles of marked trails in a 10,000 acre OHV area. Overnight camping is allowed, although there are no developed camping facilities. Toilets are provided, but no water is available. OHVs in Drinkwater Flat are restricted to designated roads and trails.

Construction of Segments G and H2 could potentially affect designated OHV trails.

Multi-Use Recreational Trails
There are more than 557 miles of hiking and equestrian trails, including a number of trailheads, within the ANF. The PCT makes up approximately 176 miles of these trails. With the exception of the PCT and trails located within designated wilderness areas, trails in the ANF are open for mountain biking and equestrian use (terrain permitting). Throughout the ANF, trails provide access to recreational and wilderness resources such as campgrounds and backcountry camping areas, day use areas and picnic areas, scenic vistas, fishing and hunting areas, and designated wilderness areas. There is a wide variety of hiking, mountain biking, and equestrian trails located throughout the ANF and within the study corridors. The specific name and location of trails that would be traversed by or within the vicinity of a Segment are identified in Table 7.1-4 (Parks, Recreation, and Preservation Areas), located in Appendix A.

Pacific Crest National Scenic Trail
The PCT is 2,650 miles long, extending from Mexico to Canada and running generally along the north-south oriented mountain ridges of California (Sierra Nevada), Oregon, and Washington (Cascade Range). The PCT crosses three national monuments, seven national parks, 24 national forests, and 33 federally mandated wildernesses. In 1968, the United States Congress designated the PCT as one of the first scenic trails in the National Trails System. Use of the PCT is limited to non-mechanized means of travel. Every year, thousands of hikers and horseback riders use some portion of the PCT and approximately 300 through-hikers attempt to complete the entire trail in a single season.

The Pacific Crest Trail Association (PCTA) is a non-profit membership group dedicated to the preservation and protection of the trail. The PCTA currently has more than 6,000 members worldwide. In 1993, the PCTA signed a Memorandum of Understanding (MOU) with the USFS and other land management agencies including the U.S. Department of the Interior (DOI), the National Park Service (NPS), and the BLM. This MOU identifies the PCTA as the federal government’s “major partner” in the management of the PCT. As described in the PCTA’s Strategic Plan, which was approved on July 15, 2006, the PCTA’s mission is to “…protect, preserve, and promote the PCT as an internationally significant resource for the enjoyment of hikers and equestrians, and for the value that wild and scenic lands provide to all people.”
The PCT crosses through the northern portion of the ANF (Santa Clara/Mojave River Ranger District) in a south-to-north direction. Although the trail is usually situated on ridgelines, it is routed off ridges in several places due to a lack of necessary easements through private property. The PCT crosses through the central portion of the ANF (Santa Clara/Mojave Rivers Ranger District) in a west-east direction, following a natural topographic divide between the Soledad Front Country Place and the Angeles High Country Place.

Campgrounds, Picnic Areas, and Trailheads
The Streamside Campground is located along Bouquet Canyon Road. The Streamside Campground is situated at an elevation of 2,500 feet and facilities include nine tent sites, picnic tables, fire pits, and vault toilets. No running water is available. An Adventure Pass is required for vehicles parked at this campground. Due to recent storm damage, Streamside Campground is currently closed by Forest Order 01-05-06. At the time of this analysis, the USFS could not confirm when the campground would be reopened to the public. With the exception of group camps, which must be reserved in advance, campsites are available on a first-come, first-served basis, with a maximum stay of 14 days. A National Forest Adventure Pass must be purchased for vehicles parked in non-fee campgrounds, and a special permit is required for group camps.

Campfires and cooking fires are permitted only within designated areas at developed USFS campgrounds and picnic areas. Outside of designated areas, a California Campfire permit must be obtained for the use of portable stoves using gas, jellied petroleum, or pressurized liquid fuel. Open wood fires are not permitted outside of designated areas.

Trailheads which provide access to the recreational trails network described above are also situated throughout HIRAs, often in the same vicinity as campgrounds or picnic areas and day use facilities.
## Table 5-6. Angeles National Forest Roadway Operational Maintenance Level Guidelines

<table>
<thead>
<tr>
<th>Maintenance Guidelines</th>
<th>OML 1</th>
<th>OML 2</th>
<th>OML 3</th>
<th>OML 4</th>
<th>OML 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shoulder</strong></td>
<td>n/a*</td>
<td>Maintain only as necessary for planned traffic.</td>
<td>Maintain existing shoulders commensurate with the traveled way.</td>
<td>Same as OML 3.</td>
<td>Maintain to the same standard as the traveled way.</td>
</tr>
<tr>
<td><strong>Drainage</strong></td>
<td>Keep drainage facilities functional and prevent unacceptable environmental damage.</td>
<td>Same as OML 1.</td>
<td>Same as OML 1.</td>
<td>Same as OML 1.</td>
<td>Same as OML 1.</td>
</tr>
<tr>
<td><strong>Roadway</strong></td>
<td>Closed to vehicular traffic. Perform work to alleviate erosion or sedimentation on or from the road. Defer removal of brush and trees from the roadway.</td>
<td>Manage vegetative cover as needed for planned traffic. Remove and/or repair slides and/or slumps as needed for access with high clearance vehicles to control resource damage.</td>
<td>Maintain existing vegetative cover. Control vegetation to provide sight distance. Repair and/or remove slides and slumps to provide passage by prudent drivers in standard passenger cars.</td>
<td>Same as OML 3.</td>
<td>Same as OML 3.</td>
</tr>
<tr>
<td><strong>Roadside</strong></td>
<td>n/a*</td>
<td>n/a*</td>
<td>Remove hazard trees and clean up litter.</td>
<td>Clean up litter in accordance with road management objectives. Remove hazard trees and perform landscape treatments as required.</td>
<td>Same as OML 4.</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Inspect and repair only those items that cannot be deferred, and that are necessary to protect investment, and preserve structural integrity.</td>
<td>Maintain all structures to provide for the passage of planned traffic.</td>
<td>Maintain structures to provide for passage of planned traffic. Defer noncritical items and combine to provide for more economical project. For example, defective bridge rails, running planks, and bridge guideposts on a current basis.</td>
<td>Same as OML 3.</td>
<td>Same as OML 3.</td>
</tr>
<tr>
<td><strong>Traffic Service</strong></td>
<td>Ensure that physical closure devices and/or appropriate signing are in place and functional at the road entrance. Defer the maintenance of signs within the closure until the road is opened. Correct deferred items prior to opening the road to traffic.</td>
<td>Install and maintain route markers; warning, regulatory, and guide signs; and other traffic control devices to provide for planned traffic and an appropriate traffic management strategy.</td>
<td>Install and maintain route markers; warning, regulatory, and guide signs; and other traffic devices to provide for planned traffic.</td>
<td>Same as OML 3.</td>
<td>Install and maintain route markers; warning, regulatory, and guide signs; and other traffic devices to provide for planned traffic. Renew centerlines, edge stripes. And other pavement and curb markings as needed to provide for planned traffic.</td>
</tr>
</tbody>
</table>


* n/a: Generally no work required.
Recreation Residences
Recreation residences on the ANF include privately owned cabins authorized under special use permits for up to 20 years. Recreation residences in the study corridor are concentrated in two areas (Bouquet Canyon and San Francisquito Canyon). Cabins are intended for weekend, vacation, or seasonal use only.

Concessionaires
Concessionaires (private businesses that operate and maintain government recreation facilities) operate under special use authorization to the USFS within the ANF.

Dispersed Recreation
Dispersed Recreation is inclusive of recreational activities that occur outside of concentrated use areas such as campgrounds, picnic areas, and maintained trails.

Hunting: Hunting is permitted throughout the ANF during seasons that are designated and managed by the CDFG. Hunters must hold a valid California hunting license to participate in recreational hunting. All hunters must comply with applicable laws, which include county, state, and federal laws which prohibit the use of firearms in certain areas, such as within 150 feet of a residence, building, campsite, developed recreation area, or other occupied area. The CDFG manages recreational deer hunting throughout the state in separate zones; the Project area is within Zone D-11.

Fishing: Recreational fishing is also a popular day-use activity in the ANF. A variety of designated fishing areas are available to the public, which are accessible using NFS roads, designated OHV routes, and multi-use hiking trails. Some fishing areas are restricted to shoreline fishing only, while others allow for fishing from boats. Permits are required for all fishing activities. The CDFG stocks some waterways within the ANF with fish.

Bouquet Canyon Creek is stocked (as long as there is enough water flow) with rainbow trout by the CDFG from late spring through summer. Stocking occurs from below Bouquet Reservoir downstream approximately nine miles to Texas Canyon. Access to the creek is from Bouquet Canyon Road. The creek is overseen by the CDFG and requires an Adventure Pass.

Camping: Dispersed (also known as remote or primitive) camping occurs outside of developed campgrounds. It occurs in both wilderness and non-wilderness areas, with or without a vehicle; however, most dispersed camping use occurs by vehicle. Dispersed camping is generally allowed forest-wide in the ANF.

Driving for Pleasure: Driving for pleasure often is the first or only recreation experience visitors have on the national forests. The ANF contains one scenic highway and byway (Angeles Crest). In addition to this designated roadway, other rural routes offer opportunities for viewing scenery and other activities over less-traveled roads. These rural routes are roads that are not managed specifically for driving pleasure but offer loops and connections to other outstanding scenery. Rest stops, turnouts, scenic vistas, interpretive panels and roadside picnic areas enhance the driving for pleasure recreation opportunity.

Wildlife and Nature Viewing: Wildlife and nature viewing are often among the top five activities in which visitors participate. Wildlife and nature viewing is widespread and mostly unrestricted. Some of the most popular opportunities focus around bird watching (migratory birds at several riparian locations) and spring wildflower viewing. Sightings of large mammals are rare but valued by the public. The national forests participate in the State of California Watchable Wildlife Program and the USFS Naturewatch programs (Eyes on Wildlife, Fishwatch and Celebrating Wildflowers).

Snowplay: Winter views of snow-covered mountains from the Los Angeles basin draw visitors to numerous popular dispersed snowplay areas across the ANF, often just places where motorists can pull their vehicles over to the side of the road.
**Water play:** It usually involves sitting by, wading through, or swimming in water. Some visitors build small rock dams in some streams to restrict water passage and create deeper, longer-lasting pools of water to recreate in. There may be associated activities near waterplay in riparian areas, including picnicking, large family gatherings, and cooking. Waterplay use is very high in the lower elevation canyons of the ANF.

**Rock Climbing:** Some rock climbing and rappelling occurs in the Santa Clara/Mojave Rivers Ranger District of the ANF.

**Designated Wilderness Areas**
There are several wilderness areas designated on NFS lands in the ANF; however, no wilderness areas are located within a study corridor. The Magic Mountain Wilderness Area is located approximately four miles south of Segment I, while the Sespe Wilderness Area (Los Padres National Forest) is situated approximately two miles west of Segment D.

**Wild and Scenic Rivers**
Congress enacted the Wild and Scenic Rivers Act (WSRA) in 1968 to preserve select rivers’ free-flowing condition, water quality and outstandingly remarkable values. The most important provision of the WSRA is protecting rivers from the harmful effects of water resources projects. The WSRA also directs that each river in the National Wild and Scenic Rivers System (National System) be administered in a manner to protect and enhance a river’s outstanding natural and cultural values. It allows existing uses of a river to continue and future uses to be considered, so long as existing or proposed use does not conflict with protecting river values. The Piru Creek Wild and Scenic River is located approximately 1.5 miles west of Segment D. Piru Creek drains the rugged and remote Sespe Wilderness and flows into the Santa Clara River.

Rivers may be identified for study by an act of Congress under Section 5(a), or through federal agency-initiated study under Section 5(d)(1). Section 5(d)(1) directs federal agencies to consider the potential of WSRs in their planning processes, and its application has resulted in numerous individual river designations and state- and area-specific legislation. A river corridor is defined as a river and the adjacent area within the boundaries of a designated river, or a river and the adjacent area within one-quarter mile of the banks of a congressionally authorized study river (one-half mile for designated/study rivers authorized under the Alaska National Interest Lands Conservation Act).

Both Sections 5(a) and 5(d)(1) studies require determinations to be made regarding a river’s eligibility, classification and suitability. Eligibility and classification represent an inventory of existing conditions. **Eligibility** is an evaluation of whether a river is free-flowing and possesses one or more outstandingly remarkable values (ORVs) including scenery, recreation, geology, fish and wildlife, history, cultural (prehistoric), or similar values. If found eligible, a river is analyzed as to its current level of development (water resources projects, shoreline development, and accessibility) and a recommendation is made that it be placed into one or more of three **classes**—wild, scenic or recreational. The final procedural step, **suitability**, provides the basis for determining whether to recommend a river as part of the National System.

Suitable uses are those compatible with protecting and enhancing the outstandingly remarkable values for which the river was designated or found eligible.

A portion of the San Francisquito Canyon, determined eligible for WSR designation in the Forest Plan, is located within the study corridors. The eligible river corridor has been divided into two segments (upper and lower). The upper segment of San Francisquito Creek begins in Green Valley at the forest boundary and flows southwesterly to the historic site of the St. Francis Dam failure. The lower segment of San Francisquito Creek begins at the St. Francis Dam and ends in Seco Canyon at the forest boundary.
The entire length of the San Francisquito Canyon flows freely into the Santa Clara River, qualifying it as free-flowing, one of the eligibility criteria. The lower segment of the river is considered outstandingly remarkable as a result of the combination of geologic processes\(^1\) and historical values\(^2\) in the corridor. The entire river (13 miles) is eligible for classification as a recreational river.

All existing facilities, management actions, and approved uses will be allowed to continue in eligible river corridors until a decision is made on inclusion into the National Wild and Scenic River System, provided these facilities, actions, and uses do not interfere with the protection and enhancement of the rivers’ outstandingly remarkable values.

New proposals include facilities, management actions, or uses on NFS land and are not allowed if they have the potential to affect the eligibility or potential classification of the river segment.

**Inventoried Roadless Areas**

Inventoried Roadless Areas (IRAs) are undeveloped areas on NFS lands that are inventoried as lacking authorized roadways as determined through the USDA Forest Service’s Roadless Area Review and Evaluation (RAREII) process. IRAs may include trails suitable for hiking and equestrian use, but do not include NFS authorized roads that would accommodate either full-sized vehicles (including high-clearance and passenger vehicles) or Off-Highway Vehicles (OHVs). IRAs are intended to protect: areas for their natural or wilderness qualities; self-contained ecosystems; and, undeveloped areas adjacent to existing Wilderness Areas (USDA Forest Service, 2005d).

Two IRAs, Red Mountain and Salt Creek, were identified within the study corridors. The Red Mountain IRA, situated in the Segment G study corridor, consists of 8,030 acres of remote undeveloped backcountry under the management of the ANF. The area connects the Coastal, Tehachapi, and San Gabriel Mountain ranges and is generally divided into four geographic units: Salt Creek, Fish Canyon, Tule, and Red Mountain. The landscape supports much wildlife and is dominated by long meandering canyons lined by pine, spruce, dense chaparral, oak, alder, willow, and sycamore. Many species of concern, including the arroyo toad (endangered), California red-legged frog (threatened), and unarmored three-spined stickleback (endangered), inhabit the area as well. Segment G would not cross directly through the IRA.

Salt Creek IRA, identified in the Segment D study corridor, consists of 11,004-acres under ANF management. The landscape is characterized by long winding canyons with steep vertical walls and year round flowing streams. The landscape supports potentially suitable habitat for several species of concern including the arroyo toad (endangered), California red-legged frog (threatened), and two-striped garter snake. Segment D would cross the Salt Creek IRA in two locations east of the Old Ridge Route, north and south of Posey Canyon. The distance across Salt Creek IRA in both locations is too long to span, meaning that Segment D would result in placement of at least two towers within the Salt Creek IRA.

Current USFS regulations regarding IRA conservation do not allow roads to be built or reconstructed in these areas. The regulations do not prohibit issuance of a special use authorization in IRAs but the project would have to be constructed by helicopter or some means other than road building.

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\(^1\) The basement of the San Francisquito watershed consists of three lithologies. Geology students from universities around the state come to this canyon to study the geologic phenomenon of these lithologies and their relationship to the St. Francis Dam disaster. The geologic values of this creek are outstandingly remarkable.

\(^2\) The lower segment of San Francisquito Creek includes a State Historic Landmark commemorating the 1928 St. Francis Dam disaster. William Mulholland played a critical role in the development of the dam and the eventual expansion of the City of Los Angeles. Mulholland is considered a regionally and nationally significant person, and the chain of events and activities that took place in this reach of San Francisquito Creek contributes to the outstandingly remarkable historic values in the corridor.
Bureau of Land Management

The BLM (Ridgecrest Field Office) also has land holdings within the Segment A Project area. The majority of this land is not contiguous, is fragmented, and is at times isolated by private holdings. Recreation Management Areas (RMAs) are BLM’s primary means of managing recreational use of the public lands. Public land falls within either a Special RMA (SRMA) or Extensive RMA (ERMA). The Project area traverses two SRMAs (Southern Sierra and Mojave SRMA) which consist of approximately 212,000 and 64,500 acres, respectively. Recreational use in these areas include: backpacking, hiking/walking/running, horseback riding, hunting, nature study, bicycling, camping, driving for pleasure, OHV use, rockhounding, photography, target shooting, and wildlife viewing. SRMAs are areas that require a recreation investment, where more intensive recreation management is needed, and where recreation is a principal management objective. These areas often have high levels of recreation activity and valuable natural resources.

Total estimated visitation (visits and visitor days) between October 1, 2007 and September 30, 2008 for the Southern Sierra SRMA was 211,286 and 448,119, respectively. The Mojave SRMA had total estimated visits of 37,389 and visitor days of 56,550 during the same time period.

Virtually all recreational activities on BLM lands depend on availability of access to recreational areas. Motorized vehicle access, or at least the degree of access, into an area affects the desirability of that area depending upon the nature of the recreational activity. Presently, motorized-vehicle access on BLM lands within the Segment A Project area occurs on “designated routes of travel” in accordance with the Multiple-Use Class L. In Multiple-Use Class L, only those routes of travel that are specifically “approved” may be used by motor vehicles.

According to the West Mojave Route Designation Program, existing BLM routes with the Segment A Project area are designated as “open” and are identified as follows: MK0022, MK0025, MK0029, MK0040, MK0045, MK0048, MK0049, MK0050, MK0051, MK0052, MK0054, MK0081, MK0082, MK0105, MK0106, and MK0108. These routes currently provide for motorized-vehicle access to recreation activities (including OHV use) and other uses such as utility corridors, livestock operations, mineral extraction sites, and private lands.

No BLM ACECs (Area of Environmental Concern) or Herd Areas/Herd Management Areas were identified in the Segment A Project area.

State

State Water Project

The California Aqueduct, which is part of the California State Water Project, provides year-round recreational fishing opportunities, primarily for striped bass and catfish. Other recreational uses, such as boating and swimming, are not permitted.

Pyramid Lake is an artificial lake formed by Pyramid Dam on Piru Creek. The earth and rock dam was built by the California Department of Water Resources and was completed in 1973. Pyramid Lake is part of the California Aqueduct. Downstream is Castaic Lake, which is the terminus of the west branch of the aqueduct. Pyramid and Castaic Lakes act as the upper and lower reservoirs for a 1,495 megawatt pumped storage hydroelectric plant. Pyramid Lake offers boating, fishing, jet skiing and picnic areas (including 5 unique sites that are accessible only by boat), and courtesy docks.

State Recreation Areas

Castaic Lake State Recreation Area, located at the northern end of the Santa Clarita Valley, is home to one of the largest State Water Project reservoirs in Southern California. Castaic Lake’s recreational facilities were built by the Department of Water Resources and the State Department of Parks and
Recreation, but the 8,000-acre park is operated and maintained by the Los Angeles County Department of Parks and Recreation. The facility consists of two separate lakes—the main reservoir and lagoon/afterbay. The main reservoir forms a V-shaped body of water with approximately 29 miles of shoreline. The east arm of the lake is open to boating, fishing and sailing, and a portion is open to water-skiing and wakeboarding. The west arm is reserved for water-skiing and wakeboarding, with a special use area for all personal watercraft. Fishing in the west arm is allowed only in the coves. Ramps are provided on the east and west sides of the dam, and picnic facilities are located in both areas. The recreation area offers self-contained overnight camping on the lagoon/afterbay. Campgrounds containing 60 campsites are located on the east side and can accommodate travel trailers, campers, and RVs. Tent camping is also available on a limited basis. The campgrounds also include a picnic area and provide access to areas designated for boating, swimming (seasonal), and fishing.

According to the California State Parks, Office of Grants and Local Services (August 2008), Castaic Lake Recreation Area is listed as a Land and Water Conservation Fund Program funded project. Specific information related to the funding is provided below.

Castaic Afterbay Development 1971/72 $1,323,375
- Picnic tables, barbecues, boating, restrooms, parking, roads, landscaping, shade structure, lighting, utilities, comfort stations, dressing rooms.

Castaic Lake SRA Development 1980/81 $200,000
- Parking lots, roads, walkways.

The Castaic Sports Complex is located just south of Castaic Lake and provides a number of sports opportunities to the public.

State Parks

Antelope Valley California Poppy Reserve
The Antelope Valley California Poppy Reserve is located 15 miles west of Highway 14, approximately three miles northwest of the existing Antelope Substation. The land is owned by the State of California and is managed by the California Department of Parks and Recreation. The reserve includes 1,745 acres of protected land in the Antelope Buttes where the California State Flower, the California poppy, flourishes every spring. There is a Visitor’s Center and a parking area at the reserve, as well as seven miles of trails, which include a paved section for wheelchair access. The trails loop around the shallow hills of the Antelope Buttes and provide dramatic views of the spring flowers, the mountains to the north and south, and the western Mojave Desert. Peak visitation at the Poppy Reserve occurs from March to May of each year (CA State Parks, 2005a).

California Back Country Discovery Trails
The goal of the California Backcountry Discovery Trail network is to provide long-distance OHV opportunities from Mexico to Oregon (CA State Parks, 2005b). Within the ANF, California State-designated Back Country Discovery Trails include Quarry Road and portions of Del Sur Ridge Road.

State Conservancies
The California Resources Agency is responsible for conserving, enhancing, and managing the state’s natural resources, including the land, water, wildlife, parks, minerals, and historic sites. State Conservancies are independent agencies under the California Resources Agency. Each has a different mission in specific geographic areas around the state. While their missions vary, their primary objectives include protecting the natural environment, increasing public access and recreation opportunities and preserving and enhancing wildlife habitat.
Santa Monica Mountains Conservancy
The Santa Monica Mountains Conservancy Park/Property is located along Segment I of the Project area. The Santa Monica Mountains Conservancy mission is to strategically buy, preserve, protect, and restore land in Southern California, forming an interlinking system of urban, rural, and river parks, open space, trails, and wildlife habitats easily accessible to the general public.

San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
Legislation created the Conservancy in 1999 and a year later it created a Parkways and Open Space Plan to preserve urban open space and habitat for the enjoyment and appreciation of present and future generations. The Conservancy sponsors projects providing low-impact recreation, education, wildlife habitat restoration, and watershed improvements that prioritize river-related recreation, re-vegetating, aesthetic improvements, and wildlife habitat.

Local
Los Angeles County Riding and Hiking Trails
The County of Los Angeles Department of Parks and Recreation manages and maintains a network of multi-use trails that run throughout Los Angeles County, including parts of the study corridors. All trails are open for hiking, mountain biking, and equestrian use, unless otherwise noted. The system has been developed in conjunction with trails provided by other federal and state agencies.

Antelope Valley Area Trails
The Antelope Valley Area Trails Plan (AVATP) is a Master Trails Plan developed and administered by the Antelope Valley Conservancy in conjunction with the City of Lancaster, the City of Palmdale, and the County of Los Angeles. The purpose of this Master Trails Plan is to interlink local and regional trails, including USFS trails and the PCT, for recreational opportunities such as hiking and horseback riding. Although trail plans developed by the Conservancy as part of the AVATP have been approved by the City of Palmdale, the City of Lancaster, and Los Angeles County, not all of the necessary easements have been attained to ensure compliance with the plan.

A.C. Warnack Nature Park
This 132-acre open space park is located approximately 1,800 feet east of Godde Hill Road and immediately south of the Los Angeles Aqueduct, between 50th Street West and 55th Street West. The park is situated on land donated by the City of Palmdale. The park consists of open space characterized by rolling hills and native vegetation. The City of Palmdale is working with local scout organizations to develop signage, campsites, and amenities such as equestrian facilities, hiking trails, and picnic areas at the park (City of Palmdale, 2006). Access is provided to the southwest corner of Warnack Park by dirt roads off of Godde Hill Road.

Planned Development of Recreational Areas
There are planned areas of development which include proposals for recreational facilities such as developed parks. Two large residential areas which are currently under development include the Ritter Ranch Master Planned Community and the Anaverde Specific Plan areas in Palmdale. A recreation center is included in the Ritter Ranch development and is planned to occupy 4.7 acres of land at the northeast corner of City Ranch Road and Ranch Center Drive. In addition, the Cities of Lancaster and Palmdale are expanding towards the west, into what is now open desert land. It is likely that additional neighborhoods and community parks will be developed as part of the newer residential areas in this region.

Community
In addition, some communities offer museums, parks, baseball fields, rodeo grounds/fairgrounds, walking/hiking/bicycle trails, water sports, outdoor sports activities at schools, and other opportunities.
Rosamond Community Services District

The Rosamond Community Services District (RCSD) does not currently own any developed park and recreation facilities.

According to the RCSD Parks System Master Plan, the persistence of trails within the RCSD indicates regular and heavy use by a variety of modes of transportation. The master plan also indicated a strong desire for a multi-use trail system in the community. Specific mention was made of equestrian, hiking, and biking trails that provide for backcountry exploration, adults commuting to work, children commuting to school, and travel to adjacent communities. The master plan provides the first step in planning a comprehensive trail system and contains a conceptual layout of 38.5 miles of trails within the RCSD service area and an additional 85.4 miles in the District’s Sphere Of Influence (SOI).

Recommendations for trails within the study corridors are organized into two categories (Major and Local):

1. Major Trails: These are trails aimed primarily at making connections beyond Rosamond itself, providing opportunities for long-distance commuting and recreational activities. There are two main trails in this category:
   - M2 – Rosamond Trail: Rosamond Boulevard is the major east-west travel route from within Edwards AFB to the Tehachapi Mountains to the west. This trail segment is proposed as a straight and efficient east-west trail route through the entire community. The majority of the length is proposed as a Class I trail following Poplar Avenue in order to avoid potential conflicts with heavy traffic and commercial properties along Rosamond Boulevard itself.
   - M3 – Powerline Trail: The RCSD should coordinate with the electric utility provider to explore development of a Class I trail within the power line corridor running SW to NE through the District’s SOI. This proposed trail corridor has potential to be extended to neighboring communities over time. The character and surfacing of the trail could vary depending on the land use and context of its surroundings. In more rural areas, the trail should be unpaved (native soil or a decomposed granite type of surfacing). Paved surfaces are generally more appropriate in developed areas. All decisions regarding trail design and surfacing must be cognizant of the primary function of the corridor as a utility easement. This trail should be open to all non-motorized trail uses.

2. Local Trails: Local trails are intended to facilitate recreation opportunities and connections within the RCSD service area and SOI. They will be somewhat variable in their design, width, surface material, and use. Some will be very urban in nature, with paved trail surfaces and a landscaped trail corridor. Others will be much more rural or natural in character, with unpaved trail surfaces and agricultural or natural vegetation surroundings. There are 14 major segments in this category. All should be developed as Class I trails where possible, though existing development may make it necessary for portions to be developed as Class II trails.
   - L9, L10, and L11 – These three segments connect the District to its SOI to the west. Together, and in combination with M2, M3, and possible Primitive trails at Willow Springs and Tropico, they provide an extensive series of trail loops of lengths from four miles to over 25 miles. The area surrounding these trail segments is currently very rural/agricultural in character. Given the
land uses and length of the loops, these trails are ideal equestrian routes and should be developed with that use in mind, while also accommodating foot and bicycle uses. RCSD Segment 11 primarily follows a major drainage and open space corridor and connects to several important open space features, making it a key segment in the system as a whole.

- L12 – RCSD segment 12 provides a critical link to the proposed Aqueduct Trail (M4) and completes a medium sized loop in the system.
- L13 – This RCSD segment follows the current northern edge of the SOI, providing important loop connections and long-distance trail options.

Private

Recreational opportunities also exist on privately owned lands, including private campgrounds, golf courses, RV parks, raceways, and resorts. Activities such as hunting may be permitted on privately owned land with landowner consent.
6.0 IMPACT ASSESSMENT

The impact assessment/mitigation planning process involves assessing initial impacts by comparing the segments with the pre-Project environment, determining mitigation that would reduce or eliminate impacts, and identifying impacts remaining after application of specifically recommended mitigation measures (residual impacts). The results of the impact assessment and mitigation planning process are presented in the Land Use Data Tables (Tables 7.1-1 through 7.1-4) found in Appendix A. Potential cumulative impacts relating to the BRRTP are presented in Section 7.5.

6.1 IMPACT METHODS

6.1.1 Impact Criteria

The following three impact assessment criteria were utilized: resource sensitivity, resource quantity, and resource quality.

Resource Sensitivity

Resource sensitivity, or the functional, social, and economic aspects of various land use categories, was considered in determining how susceptible to change land uses would be to the introduction of the Project. The level of road access required was used to modify the assigned sensitivity level.

Sensitivity is a measure of the probable adverse responses that a land use would have to the direct and indirect impacts associated with the construction and operation of the BRRTP. The adverse effects depend on three major criteria:

- **Susceptibility of the land use to the potential changes caused by construction and operation activities.** Potential change describes the physical/social changes that could potentially occur to a land use. Changes are brought about by:
  a) acquisition of land or property rights to accommodate the facilities;
  b) installing the facilities;
  c) the physical presence and operation of the facilities; and
  d) the management and maintenance of the ROW and the facilities

The potential for change from introducing transmission line facilities differs from one land use category to another with respect to what might be altered and to what extent. This potential for change is predicted by evaluating the environmental conditions, the Project description, and the implementation specifications.

- **Significance of the potential changes to the land use.** The effect of potential changes on the human use of the land is described in levels of significance. The significance of any physical, economic or psychological change relates to the immediate and long-term effects that the change may have, either directly or indirectly, on the quality of life of the people inhabiting or utilizing the area. With these considerations in mind, a value of high, moderate, or low was assigned to land uses. This definition is not necessarily the same as the significance of an impact as defined in NEPA Regulations (40 CFR 1508.27).

- **Local or regional importance of the land use.** Individual land use categories inherently possess differing values within the context of the environment as a whole. For instance, within any given region, there are land uses that are functionally, socially, or economically more valuable than others. Importance indicates a measure of the attitudes of the users of the affected lands. The local, state, or regional value or importance of each land use was rated on a scale of high, moderate, or low.
The sensitivity levels are defined as follows:

**Maximum** – Assigned to those land use categories where the officially stated or approved land use restriction, plan or policy would be violated by the introduction of transmission facilities or where both significance of change and local or regional importance were rated high.

**Major** – Assigned to those categories where one of the elements, either the importance of the land use category or the significance of the potential changes to that category, was rated high while the other was rated moderate.

**Moderate** – Assigned to those categories where one of the elements, either the importance of the land use category or the significance of the potential changes to that category, was rated high while the other was low, or where both elements were rated as moderate.

**Minor** – Assigned to those categories where one of the elements, either the importance of the land use category or the significance of the changes to that category, was rated moderate while the other element was rated low, or where both elements were rated as low.

**Determination of Sensitivity Levels**

Once established, these sensitivity criteria were systematically applied to each land use. The degree or level to which each land use is sensitive to the introduction of the Project transmission line is dependent upon the relationship between the above criteria. Table 6-1 depicts this relationship.

<table>
<thead>
<tr>
<th>Importance of Land Use Category</th>
<th>Significance of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>Maximum</td>
</tr>
<tr>
<td>Moderate</td>
<td>Major</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

**Resource Quantity**

The areal extent and number of occurrences of an environmental change are intrinsic components in any assessment of environmental impact. The totals of impact levels increase as a function of the number of individual occurrences, miles, or acres of a given impact type. However, the relative impacts for each Segment are not necessarily directly proportionate to the resource quantity.

Land use impacts are quantified in miles of a corresponding impact level listed by mileposts along each study corridor (refer to the Land Use Data Tables-Tables 7.1-1 through 7.1-4, found in Appendix A).

Resource quantity also included the amount of ground disturbance caused by upgrading existing access roads, construction of new access roads, marshalling yards, and towers. Ground disturbance factors which utilized GIS-based terrain data and Project access levels, were used to determine construction area disturbance.

**Resource Quality**

The resource quality variable considers the condition of the existing land uses and the environmental setting (e.g., relative to the presence or absence of other existing land uses/disturbances). This situation would result in potential impacts to existing land uses and alteration of future land uses that may not have otherwise occurred.
6.1.2 Impact Levels

Resource sensitivity was the primary element in determining initial impact levels for land uses. The presence or absence of existing parallel transmission lines modified the sensitivity level, while access and ground disturbance levels quantified the area of impact. In addition, site-specific circumstances were considered, and in some cases modified the impact level. Agency, utility, or public concerns helped determine site-specific factors.

The impact levels are defined as follows:

- **High Impact** – Assigned to those land use categories where the officially stated or approved land use restriction, plan, or policy would be violated, or where land use sensitivity was major and/or where the sensitivity was moderate but modified by moderate to high quantity levels. Land use impacts would be considered high if the Project would substantially preclude the primary existing or planned use of the land, result in a major change in overall land use patterns, create considerable conflict with permitted land uses, substantially alter existing recreational activities, or create extensive new recreational opportunities in the area.

- **Moderate Impact** – Assigned to those land use categories whose sensitivity is moderate or where sensitivity is minimum, and quantity is high. Land use impacts would be considered moderate if the Project would create a modest change in the primary existing or planned use of the land, overall land use patterns, recreational opportunities, or would slightly conflict with permitted land uses.

- **Low Impact** – Assigned to those land use categories where sensitivity is minimum (excluding the above). Land use impacts would be considered low if the Project would not noticeably change the primary existing or planned use of the land, would cause only, at most, a minor change in overall land use patterns or recreational opportunities, and would not conflict with permitted land uses.

- **No-Identifiable Impact** – Assigned to those land use categories where no measurable impact would occur to the specific resource under investigation. Small changes and stresses to the resource are not always adverse; some are neutral and therefore not identifiable impacts.

6.1.3 Significance Criteria

NEPA provides no specific thresholds of significance for the assessment of project impacts on land use, but regulations require consideration of an impact’s context and intensity to determine significance. To satisfy CEQA requirements, conclusions are made regarding the significance of each identified impact that would result from the segments. Appropriate criteria have been identified and utilized to make these CEQA significance conclusions. The following significance criteria for Land Use were derived from previous environmental impact assessments and from the CEQA Guidelines (Appendix G, Environmental Checklist Form, Section IX). Impacts associated with the Segments would be considered significant if they would:

**Land Use**

- Criterion LU1: Conflict with any applicable federal, state, or local land use plans, goals, or policies.
- Criterion LU2: Preclude a permitted land use, or create a disturbance that would diminish the function of a particular land use.
- Criterion LU3: Conflict with Military Operations.

**Agricultural Resources**

- Criterion AG1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation (DOC) and the USDA Natural Resources Conservation Service, to non-agricultural use.
• Criterion AG2: Involve other changes in the existing environment, which, due to their location or nature, could result in interference with agricultural operations.
• Criterion AG3: Conflict with a Williamson Act contract.

Recreation

• Criterion R1: Directly or indirectly disrupt or preclude activities in established federal, State, or local recreation areas.
• Criterion R2: Substantially contribute to the long-term loss or degradation of the factors that contribute to the value of federal, state, local, or private recreational facilities or areas.

6.1.4 Impact Types

Significant impacts to land use, agriculture, and recreation would occur if:

Land Use

• Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.
• Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.
• Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.
• Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.
• Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.
• Impact LU-6: Operation would conflict with military operations.
• Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 Energy Corridor.

Agricultural Resources

• Impact AG-1: Construction activities would temporarily preclude the agricultural use of farmland.
• Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.
• Impact AG-3: Construction activities would interfere with agricultural operations.
• Impact AG-4: Operation would interfere with agricultural operations.
• Impact AG-5: Conflict with Williamson Act contract lands.

Recreation

• Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.
• Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.
• Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail.
• Impact R-4: Contribute to degradation of OHV routes or would result in a loss of recreational opportunity for OHV users.
• Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

The effects of the Project to land jurisdiction involve primarily land policies, land management plans, and permitting requirements of federal, State, and local agencies. The land jurisdictions mapped in the
The land use impact data tables (Table 7.1-1: Existing Land Use, Table 7.1-2: Agricultural Resources, Table 7.1-3: Planned Land Use, and Table 7.1-4: Parks, Recreation, and Preservation Areas), located in Appendix A, display the results of the impact assessment and mitigation planning process. The data tables show, by Segment, the milepost location of potential impacts, access and ground disturbance level, the land use feature, initial impact levels, specifically recommended mitigation measures, and residual impact levels.

For purposes of this analysis, a construction-related (temporary) land use impact would occur if access to a land use would temporarily be disrupted or if the nature, condition, or operation of a land use would temporarily be altered during construction. The temporary land area requirements expected include the work areas around each structure site, work areas for installing conductors, guard structures at crossings, storage and staging yards, access roads, substation expansion, and new substation construction. Land temporarily disturbed during construction would be returned to as close to pre-construction conditions as possible following completion of construction activities.
An operational (permanent) land use impact would occur if access to a use would permanently be disrupted or if the nature, condition, or operation of a use would permanently be altered as a result of Project operation. Permanent land disturbance includes the structure site, construction of new access and spur roads, and the removal of non-compatible land uses along the ROW for electric system maintenance, safety and reliability purposes.

Maintenance impacts refer to the effects resulting from the types of activities necessary for long-term maintenance of the proposed transmission lines and substations, such as routine inspections and repairs along the ROWs, operation of substations, and inspection and repair of permanent access roads.

A discussion of the direct and indirect effects associated with the preliminary routing Segments, as well as General Practices utilized to reduce the impacts, are presented below.

6.2 IMPACT RESULTS COMMON TO ALL SEGMENTS

6.2.1 Land Use

CONFLICT WITH ANY APPLICABLE FEDERAL, STATE, OR LOCAL LAND USE PLANS, GOALS, OR POLICIES (CRITERION LU1)

The NEPA Regulations require that an EIS contain a discussion of the possible conflicts between a proposed action and the objectives of federal, regional, state, local and, if applicable, Native American nation (reservation) land use plans, policies and controls (Title 40 of the Code of Federal Regulations [CFR] Part 1502.16[c]). The NEPA Regulations further state that to better integrate an EIS into state or local planning processes, the EIS must discuss any inconsistency of a proposed action with any approved state or local plans and laws. If an inconsistency is identified, the EIS must provide an evaluation of the extent to which the inconsistency can be reconciled (Title 40 CFR Part 1506.2[d]). The CEQA Guidelines (Title 14 of the California Code of Regulations [CCR] Sections 15000 et seq.) do not specifically require that a policy analysis be completed for a proposed project or its alternatives. However, Appendix G of the CEQA Guidelines, which contains the state model format for the environmental analysis of an initial study, contains an item under the land use and planning assessment that requires the identification of any conflicts that could occur between a proposed project and applicable land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. While a proposed project (or action) may be approved even though an inconsistency with applicable land use plans, policies and goals may occur, both CEQA an NEPA require that the evaluation be made for consideration by decision makers.

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Segments would traverse multiple jurisdictions which have adopted plans related to land use planning, development, and management. An inconsistency between a proposed project and an applicable plan is a legal determination, not a physical impact on the environment. There is no agreed objective standard by which to judge the degree of inconsistency or the significance of a project’s inconsistency with the various policies and objectives enumerated in adopted plans. Inconsistency with a plan alone does not mandate a finding of a significant impact under CEQA or NEPA. Inconsistencies may, however, may be a factor in determining the significance of an underlying physical impact. Table 6-3 provides a matrix listing both the planning documents reviewed and the Segments to which they apply.
### Table 6-3. Plans Applicable by Segment

<table>
<thead>
<tr>
<th>Applicable Plan</th>
<th>Segment(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FEDERAL</strong></td>
<td></td>
</tr>
<tr>
<td>Angeles National Forest Land Management Plan</td>
<td>D, G, 2a, H, I, and J</td>
</tr>
<tr>
<td>California Desert Conservation Area (CDCA) Plan</td>
<td>A</td>
</tr>
<tr>
<td><strong>REGIONAL</strong></td>
<td></td>
</tr>
<tr>
<td>Southern California Association of Governments Regional</td>
<td>A, B, C, D, E, F1, F2, H1, H2, I, J, and K</td>
</tr>
<tr>
<td>Comprehensive Plan and Guide</td>
<td></td>
</tr>
<tr>
<td>Kern County General Plan</td>
<td>A, B, C, and E</td>
</tr>
<tr>
<td>Kern County General Plan – Willow Springs Specific Plan</td>
<td>B and C</td>
</tr>
<tr>
<td>County of Los Angeles General Plan</td>
<td>D, E, F1, F2, 115th Street, G, H1, H2, and I</td>
</tr>
<tr>
<td>City of Lancaster General Plan 2030</td>
<td>I</td>
</tr>
<tr>
<td>City of Palmdale General Plan</td>
<td>I</td>
</tr>
<tr>
<td>City of Palmdale – Ritter Ranch Specific Plan</td>
<td>I</td>
</tr>
<tr>
<td>City of Palmdale – City Ranch Specific Plan</td>
<td>I</td>
</tr>
</tbody>
</table>

Table 6-4 presents the Proposed Project’s consistency with applicable land use plans and policies.
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TABLE 6-4. CONSISTENCY WITH APPLICABLE LAND USE PLANS AND POLICIES

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>PLAN/POLICY</th>
<th>CONSISTENT</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Strategic Plan Goal 4 – Help meet energy resource needs</td>
<td>Yes</td>
<td>With the exception of Segment 2a, segments would utilize existing utility corridors within the ANF to deliver electricity from new wind and solar projects in southern Kern County to the Los Angeles Basin. The Proposed Project would not conflict with this policy.</td>
<td></td>
</tr>
<tr>
<td>Forest Goal 4.1b – Support use of renewable resources</td>
<td>Yes</td>
<td>The purpose of the Proposed Project is to provide the facilities to interconnect and integrate new wind and solar generation in southern Kern County. With wind and solar energy identified in the proponent’s purpose and need, the Proposed Project is consistent with this policy that encourages the development of alternative energy sources.</td>
<td></td>
</tr>
<tr>
<td>Forest Goal 7.1 – Minimize the land area needed to support growing public needs</td>
<td>Yes</td>
<td>This goal states that facilities supporting urban infrastructure needs should be clustered on existing sites or designated corridors, minimizing the number of acres encumbered by Special Use Authorizations (SUAs). As it traverses ANF lands, Segment G would occur entirely within a designated existing utility corridor. Segments D, H2, and I would primarily occur within designated existing utility corridors in the ANF. Utilization of these existing designated utility corridors would minimize the land area needed to support utility infrastructure.</td>
<td></td>
</tr>
<tr>
<td>USDA Forest Service, Pacific Southwest Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed Areas Interface (DAI) Land Use Zone</td>
<td>Yes</td>
<td>Segments D, G, and H2 would traverse a DAI land use zone. As described in Tables 2.1.2 and 2.1.3 of the Land Management Plan, the DAI land use zone permits major utility corridors within designated areas and is also considered suitable for authorized motorized use.</td>
<td></td>
</tr>
<tr>
<td>Back Country (BC) Land Use Zone</td>
<td>Yes</td>
<td>Segments D, G, H2, I, and 2a would traverse a BC land use zone. As described in Tables 2.1.2 and 2.1.3 of the Land Management Plan, the BC land use zone permits major utility corridors within designated areas and is also considered suitable for authorized motorized use.</td>
<td></td>
</tr>
<tr>
<td>Back Country Motorized Use Restricted (BCMUR) Land Use Zone</td>
<td>Yes</td>
<td>Segment D would traverse a BCMUR land use zone. As described in Tables 2.1.2 and 2.1.3 of the Land Management Plan, the BCMUR land use zone permits major utility corridors within designated areas and is also considered suitable for authorized motorized use.</td>
<td></td>
</tr>
<tr>
<td>Back Country Non-Motorized (BCNM) Land Use Zone</td>
<td>No</td>
<td>Segments D and 2a would traverse a BCNM land use zone. As described in Table 2.1.3 of the Land Management Plan, the BCNM land use zone is considered not suitable for major utility corridors. Construction-related activities that may occur within the BCNM land use zone would not be consistent with this designation.</td>
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</tr>
<tr>
<td>ANF S1-Pacific Crest Trail</td>
<td>Maybe*</td>
<td>Standard ANF S-1 requires protection of the scenic foreground from the PCT. This Forest Standard may not be met, and if not the plan would be amended to ensure that the Proposed Project is in compliance with the ANF Land Management Plan. See the Visual Resources Technical Report for further explanation.</td>
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<tr>
<td>AGENCY</td>
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<td>Pacific Crest Trail Management Plan, Angeles National Forest (Sept. 1980)</td>
<td>Yes</td>
<td>The Plan does not include any policies pertaining to the effects on the existing use or recreational value of the PCT from new projects constructed in the vicinity of the PCT. The Proposed Project would not conflict with this Plan.</td>
</tr>
<tr>
<td></td>
<td>S10 – Scenic Integrity Objectives</td>
<td>No</td>
<td>The Proposed Project would not meet Scenic Integrity Objectives. See the Visual Resources Technical Report for further explanation.</td>
</tr>
<tr>
<td></td>
<td>S42 – Include Raptor Safety in Permits</td>
<td>Yes</td>
<td>Appropriate raptor protection would be included either as EPMs agreed to by LADWP, or as mitigation selected by the USFS Authorized Officer in the Record of Decision.</td>
</tr>
<tr>
<td></td>
<td>S47 – Apply 5-Step Screening for Riparian Conservation Areas</td>
<td>No</td>
<td>Impacts to RCAs would be avoided to the greatest extent possible but it is not anticipated that all negative impacts to RCAs would be eliminated.</td>
</tr>
<tr>
<td></td>
<td>S59 – Wild/Scenic River</td>
<td>Yes</td>
<td>The Proposed Project would not negatively affect the free flowing nature or outstanding remarkable values of an eligible Wild and Scenic Rivers (geology and history); therefore no suitability study is required. Refer to the Forest Service Plans and Policies discussion below.</td>
</tr>
<tr>
<td></td>
<td>California Desert Conservation Area Plan (1980, as amended)</td>
<td>Yes</td>
<td>The Proposed Project would utilize a BLM-designated utility corridor (Corridor A). This utility corridor is also a 368 energy corridor (multi-modal corridor 23-106).</td>
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<td></td>
<td>USDA Natural Resources Conservation Service</td>
<td>Farmland Protection Policy Act</td>
<td>Yes</td>
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<td></td>
<td>California Department of Education School Site and Selection and Approval Guide</td>
<td>5 CCR Selection 14010I</td>
<td>Yes</td>
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<td></td>
<td>Southern California Association of Governments</td>
<td>Regional Comprehensive Plan and Guide</td>
<td>Growth Management Policy D-1(iii)</td>
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<tr>
<td></td>
<td>Kern County General Plan (2009)</td>
<td>Appendix B: Rural Community Development Guidelines and Requirements (Land Use) – Compatibility of industrial development within a rural community</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Kern County</td>
<td>Energy Element</td>
<td>Goal: To encourage the safe and orderly development of transmission lines to access Kern County’s electrical resources along routes, which minimize potential adverse environmental effects</td>
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<td>AGENCY</td>
<td>PLAN/POLICY</td>
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<td>Transmission Line Policy 1: The County should encourage the development and upgrading of transmission lines and associated facilities (e.g., substations) as needed to serve Kern County’s residents and access the County’s generating resources, insofar as transmission lines do not create significant environmental or public health and safety issues</td>
<td>Yes</td>
<td>Implementation of the Proposed Project serves to comply with this policy.</td>
</tr>
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<td></td>
<td>Transmission Line Policy 2: The County shall review all proposed transmission lines and their alignments for conformity with the Land Use, Conservation, and Open Space Element of this General Plan</td>
<td>Yes</td>
<td>The Proposed Project would be reviewed by Kern County for conformity with the Land Use, Conservation and Open Space Element of the General Plan.</td>
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<td></td>
<td>Transmission Line Policy 3: In reviewing proposals for new transmission lines and/or capacity, the County should assert a preference for upgrade of existing lines and use of existing corridors where feasible</td>
<td>Yes</td>
<td>The Proposed Project involves transmission line reconductoring and the placement of a new transmission line adjacent to existing transmission line corridors.</td>
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<td></td>
<td>Transmission Line Policy 4: The County should work with other agencies in establishing routes for proposed transmission lines</td>
<td>Yes</td>
<td>LADWP has provided notice of the Proposed Project to Kern County.</td>
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<td></td>
<td>Transmission Line Policy 5: The County should discourage the siting of above-ground transmission lines in visually sensitive areas</td>
<td>Yes</td>
<td>General Practices and specifically recommended mitigation measures associated with the Proposed Project would minimize environmental impacts to visually sensitive areas.</td>
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<td></td>
<td>Transmission Line Policy 6: The County should encourage new transmission lines to be sited/configured to avoid or minimized collision and electrocution hazards to raptors</td>
<td>Yes</td>
<td>Appropriate raptor protection would be included either as GPs agreed to by LADWP, or as mitigation selected by the USFS Authorized Officer in the Record of Decision.</td>
</tr>
<tr>
<td>Willow Springs Specific Plan (1992)</td>
<td>Goal 3: Encourage retention of productive agricultural and dormant mineral resources by imposing a restriction on allowing urban type land uses on nearby adjacent lands</td>
<td>Yes</td>
<td>The Biological Resources Technical Report considered current State and federal laws and regulations in the analysis of the Project impacts. LADWP would be required to follow current State and federal laws and regulations protecting biological resources.</td>
</tr>
<tr>
<td></td>
<td>Policy 3: To ensure compliance with applicable State and federal laws and to protect biological resources present in the Specific Plan area</td>
<td>Yes</td>
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<tr>
<td>County of Los Angeles General Plan (1993)</td>
<td>General Goals and Policies</td>
<td>Yes</td>
<td>The segments would be located across rural portions of northern Los Angeles County, and would primarily require the construction of a new ROW. However, with the exception of Segment C and a portion of Segment D, the Proposed Project would locate the new transmission line adjacent to existing utility infrastructure. It therefore would not introduce a new land use that is inconsistent with existing surroundings.</td>
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Los Angeles County
### AGENCY

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<th>PLAN/POLICY</th>
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<tr>
<td><strong>City of Lancaster</strong></td>
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<td>City of Lancaster General Plan 2030</td>
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<tr>
<td>Policy 3.6.6</td>
<td>Yes</td>
<td>The Proposed Project would incorporate alternative energy resources (wind and solar energy).</td>
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<td>Specific Action 3.6.6(a)</td>
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<td><strong>City of Palmdale</strong></td>
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<tr>
<td>City of Palmdale General Plan (1993)</td>
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<tr>
<td>Policy ER8.1</td>
<td>Yes</td>
<td>The Proposed Project would not traverse important farmland within the city of Palmdale. As such, no conflicts with this policy would occur.</td>
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<tr>
<td>Policy ER8.2</td>
<td>Yes</td>
<td>The Proposed Project would not traverse important farmland within the city of Palmdale. As such, no conflicts with this policy would occur.</td>
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<tr>
<td>Policy S2.6.1</td>
<td>Yes</td>
<td>LADWP would implement industry-accepted methods and materials for construction of the Proposed Project.</td>
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<td><strong>City of Palmdale</strong></td>
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<td>City Ranch Specific Plan (1992)</td>
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<td>Policy 8: Ensure that development respects the unique character of the natural environment and surrounding development patterns</td>
<td>Yes</td>
<td>The Proposed Project includes mitigation measures to reduce impacts to the environment as discussed in the response to these policies and other City plans.</td>
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<td><strong>City of Palmdale</strong></td>
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<td>Ritter Ranch Specific Plan (1992)</td>
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<td>Objective 4.1: Provide open space areas for conservation, recreation, leisure and aesthetic purposes</td>
<td>Yes</td>
<td>The Proposed Project would be placed adjacent to an existing ROW and continue an existing land use (electrical transmission corridor).</td>
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<td><strong>City of San Fernando</strong></td>
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<td>City of San Fernando General Plan (1987)</td>
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<td>Yes</td>
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<td><strong>City of Santa Clarita</strong></td>
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<tr>
<td>City of Santa Clarita General Plan (1991)</td>
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*Standard ANF S-1 may be met if towers are placed far enough from the Pacific Crest Trail to avoid impacting the foreground views. Since locations of towers are not known, this LMP standard is listed as a “maybe” for consistency with the ANF LMP.*
USFS and Policies

In addition to the discussion above (Table 6-4), as part of the Proposed Project’s approval, and prior to construction, the USFS would issue a Special Use authorization, which would involve amending the 2005 ANF Land Management Plan, as necessary, to ensure consistency with the USFS management direction for affected areas within the ANF. It is currently anticipated that two Project-specific amendments would be required for the Proposed Project to allow for its inconsistencies with the Land Management Plan’s Standards S10 (Scenic Integrity Objectives), and S47 (5-Step Screening for Riparian Conservation Areas). A third Project-specific amendment may be needed for Standard ANF S-1, (Foreground Views from Pacific Crest Trail). The USFS would also include in its Special Use authorizations any construction-related activities which would be located outside of the ROW widths to ensure compliance with USFS plans and policies. Implementation of construction mitigation measures required by the USFS, combined with the use of resource-specific recommended mitigation measures, would ensure the Proposed Project’s consistency with the USFS land use policies identified in Table 6-4.

It should also be noted here that Segment G would cross a Special Designation Overlay (i.e., the San Francisquito Canyon, an Eligible Wild and Scenic River with outstandingly remarkable geologic processes and historical values). Segment G would not obstruct or modify (e.g., impoundment, diversion, rip-rapping, or other modification) the free-flowing condition of the San Francisquito Creek. Segment G would not significantly alter or change the geologic characteristics or interpretive attributes of the area and does not involve mineral extraction or significant surface degradation. Any construction activities will be conducted in a manner that minimizes surface disturbance and sedimentation. Segment G would cross the upper segment of San Francisquito Creek over 4 miles northeast of the St. Francis Dam site and would not affect the historic value of the creek. Segment G continues southwest paralleling the lower segment of the creek, but would not be visible from the dam site because of an intervening ridge. As such, Segment G would not affect the outstandingly remarkable geologic or historic value of San Francisquito Creek. Segment G would not degrade the values or reduce the qualities of the San Francisquito Canyon corridor and is, therefore, consistent with the Wild and Scenic River Standard S59.

Following construction, temporary pulling, tensioning and splicing sites, staging areas, and access or spur roads would be closed and restored per the requirements of the USFS and the applicable mitigation measures specified in the Visual Resources Technical Report, Biological Technical Report, Preliminary Geotechnical Report, Paleontological Resources Assessment Report, and Water Resources Technical Report. New or existing access and spur roads would be maintained in accordance with the USFS’s approval. Therefore, the Proposed Project would be consistent with the USFS land use policies identified in Table 6-4, and no impacts would occur.

Local Plans and Policies

Table 6-4 presents the Proposed Project’s consistency with the local land use plans and policies as they relate to transmission lines and associated facilities. Although implementation of the Proposed Project would require new ROW and substation sites, these features would not conflict with the land use plans and policies identified in Table 6-4.

PRECLUDE A PERMITTED LAND USE, OR CREATE A DISTURBANCE THAT WOULD DIMINISH THE FUNCTION OF A PARTICULAR LAND USE (CRITERION LU2)

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses

Some construction-related activities would require the temporary use of lands for purposes other than their existing use. Lands currently undeveloped or vacant would be used for staging areas, access roads, and pulling, tensioning, and splicing sites. The use of these areas could temporarily restrict access to, or the use of, lands that surround them. Construction would additionally cause temporary disturbances due
to site-specific access limitations and parking restrictions, increased traffic and congestion along construction routes and detour routes, increased dust generation and noise, and changes in the overall visual character of an area due to the presence of construction-related equipment, personnel, and associated activities.

Construction would require the improvement of some existing access and spur roads in order to accommodate construction-related heavy equipment; the construction of some new access, spur, and radius roads would additionally be needed.

Construction activities would affect residential areas, including rural, semi-rural, urban, and suburban residential uses. Due to the proximity of some residential uses to construction-related activities, in conjunction with the intensity of the workforce and equipment needed and the duration of construction itself, the impacts to residential uses would be considered adverse. Short term disturbance to residents beyond the 500 foot corridor could also occur. Residents within 1,000 feet of construction (Table 5-2) could perceive activities as an intrusion of their privacy, and may adjust, limit, or cease some of their daily routines and activities in response to construction. Access to and from residential properties may also be restricted during peak construction periods, which may conflict with their daily schedules and routines. Indirect effects would also occur at distances greater than 1,000 feet from construction sites due to the placement of temporary access roads, which could cause limited access to some properties, and the need for construction-related detours which are not directly affected by construction activities. Although these disturbances would be temporary, restrictions and preclusions of, and inconveniences to, the daily routines and activities of local residences due to construction may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses

As addressed under Impact LU-2, above, construction would require the use of lands for purposes other than their existing uses to accommodate transmission structure placement and removal areas, staging areas, access roads, and pulling, tensioning and splicing sites. Construction-related activities would also temporarily restrict or preclude access to, and potentially the use of, lands adjacent to construction-related work areas. Lands used for construction could additionally be damaged to a degree that their existing uses are impaired. The intrusion of construction equipment, materials, and personnel typically constitutes an adverse but less than significant impact because it occurs for a limited period of time and does not result in permanent disturbances.

Areas adjacent or in close proximity to the proposed ROW (and associated construction areas) are actively used for non-residential uses such as commercial, public, industrial, and utility related facilities. Within the ANF, the proposed ROW traverses multiple zones and Places. A USDA Forest Service Ranger Station, maintenance yard, and Special Use Authorizations (recreation residence tracts, public and private road rights-of-way, apiaries, domestic water supply conveyance systems, telephone and electric service rights-of-way, oil and gas pipeline rights-of-way, communications facilities, and hydroelectric power-generating facilities), are also adjacent or in close proximity the proposed ROW. Some of these uses are directly traversed by the proposed ROW. Several airports, air fields, and heliports (private, public and military), are located in close proximity to and/or in the vicinity of the proposed ROW.

Within the ROW itself, construction-related activities associated with structure assembly and installation and removal sites, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or
shipment of goods and services, as well as customer and employee ingress and egress. Additionally, site-specific operations would be impaired or prohibited at some locations due to the need to clear areas for construction equipment and materials. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition. These disruptions and displacements of non-residential land uses would be adverse.

Construction within an approximate 1,000 feet of either side of (e.g., outside of) the ROW would also result in the same types of effects as described above due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

**Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses**

Direct or high impacts on existing residences could result from the incompatibility with or removal of occupied dwellings and related structures from the ROW. The location of the ROW within existing and planned residential developments could result in initial high to moderate impacts where operation and maintenance would preclude or impair future development activities.

Preclusion of, and incompatibility with, existing undeveloped and/or planned residential developments within proposed new ROWs would be considered a moderate or adverse but less than significant impact. No specific mitigation measures are recommended.

The removal of existing residence(s) on private property is considered a high or significant and unavoidable impact. This impact can only be avoided with a re-route around the residence(s).

As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.
Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses

Segments traverse non-residential land uses, such as planned electrical power generation facilities (wind and solar development), utilities (primarily the Los Angeles Aqueduct, operated by LADWP), and an AVEK Groundwater Recharge Project area. Property that is owned by the Westside Union School District (WUSD) and/or proposed as a future school site is also traversed (see Table 7.1-3, Planned Land Use).

Non-residential lands are also located within one-half mile of the proposed transmission line and fall under the jurisdiction of federal and State agencies including the USFS, BLM, DoD, California State Lands Commission, the Department of Water Resources, and the California Department of Parks and Recreation. Additionally, military air facilities, heliports and landing strips regulated by the FAA and Airport Land Use Commissions (or their respective alternative processes) are located within the region. Numerous local (county and city) jurisdictions would also be traversed.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

Impact LU-6: Operation would conflict with military operations.

The transmission line could intersect or occur where low-altitude military operations may regularly occur (R-2508). Coordination/consultation with the DoD will be conducted regarding the location and potential effects/conflicts of the Project upon operations or training activities in military airspace. Review by the Department of Defense would ensure that the Proposed Project would not conflict with military operations.

Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.

Future energy transport projects could be located within a designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of the project, the project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would depend directly on the existing land use in the project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.
6.2.2 Agricultural Resources

CONVERT FARMLAND TO NON-AGRICULTURAL USE (CRITERION LU3)

Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland

Construction activities across these lands would include the construction and assembly and installation of transmission lines, installation of transmission structure foundations and access roads, extension of spur roads, and the stringing of conductors and overhead groundwire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and assembly and installation, and stringing and pulling.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Farmland would be minimized such that impacts would be considered adverse, but not significant.

Impact AG-2: Operation would permanently convert Farmland to non-agricultural use

Impacts to Farmland would occur where the location of Project facilities, such as access roads and transmission structures, would permanently convert the land upon which they are situated to non-agricultural use.

Loss of Farmland would result in initial high and moderate impacts. Following rehabilitation, areas removed from use for the life of the Project would include the small areas at the transmission structure footings and/or guy anchors, as well as specific new access roads.

Once construction is complete and the transmission structures are in place, agricultural uses may be re-established/continued within the transmission ROW.

INTERFERE WITH AGRICULTURAL OPERATIONS (CRITERION LU4)

Impact AG-3: Construction activities would interfere with agricultural operations

Construction activities across agricultural lands would include the construction, assembly and installation of transmission lines, installation of structure foundations and access roads, extension of spur roads, and the stringing of conductor and overhead groundwire. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.
Impact AG-4: Operation would interfere with agricultural operations

Operation and maintenance would result in the presence of transmission lines, including transmission structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along these Segments.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and create irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

CONFLICT WITH WILLIAMSON ACT CONTRACT LANDS (CRITERION LU5)

Impact AG-5: Conflict with Williamson Act contract lands

The presence of a new transmission line would involve both the temporary and permanent conversion of lands under Williamson Act contracts. Because the Project is an electrical infrastructure project, Kern County considers these components to be allowable uses under Williamson Act contracts. Consequently, there would be no conflict with Williamson Act contracts. Los Angeles County does not participate in the Williamson Act program.

6.2.3 Recreation

DIRECTLY OR INDIRECTLY DISRUPT OR PRECLUDE ACTIVITIES IN ESTABLISHED FEDERAL, STATE, OR LOCAL RECREATION AREAS (CRITERION LU7)

Construction, operation, and maintenance activities could potentially disrupt access to established recreational facilities/areas in the Project area, or otherwise disturb activities in such areas. Impacts associated with construction activities would be temporary in nature, whereas impacts associated with operation and maintenance would continue for the lifetime of the Project and are therefore considered to be permanent or recurring impacts.

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas

It is anticipated that construction of the Project would occur over a two year period, thereby potentially disrupting access. Impact R-1 would occur for recreation facilities/areas that would be crossed by the proposed transmission line. These facilities/areas would not necessarily be physically impacted by the presence of the transmission line because in most cases the transmission line would span it without any ground disturbance.

These facilities/areas, however, would be restricted from use during construction activities in order to protect the safety of public recreationists. During construction, ground work would be required at each tower pad location as well as along select roadways between the locations (with the exception of areas requiring helicopter construction). As a result, these areas would be temporarily closed for up to a year during construction activities.
Recreational facilities/areas located in the near vicinity of the proposed transmission line may also experience temporary use disruptions such as construction noise. In addition, access to recreational facilities/areas may be restricted if roads or trails to such areas are used by construction equipment and vehicles. These impacts would be temporary and of short duration, lasting only as long as required to complete the activity.

Temporary access restrictions to established recreational areas or disruption of activities within such areas as a result of Project construction would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands. Coordination between LADWP, the USFS, and the BLM regarding road improvements and construction timelines will facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under Impact R-1. The following specifically recommended mitigation measures, which are described below, would help to reduce the significance of Impact R-1:

Specifically Recommended Mitigation Measures for Impact R-1

**SRM R-1a: Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

**SRM R-1b Identify and provide notifying of alternative recreation areas.** To the extent feasible, LADWP shall coordinate with the authorized recreation officer(s) or the agencies of all recreational areas affected by construction and maintenance activities, including but not limited to those listed under SRM R-1a (Coordinate construction schedule and maintenance activities with managing officer[s] for affected recreation areas), the purpose of which is to accomplish the following:

- Identify recreational areas (i.e., trails, parks, day-use areas) that would be closed during Project construction or maintenance activities;
- To the extent feasible, identify alternative recreational areas for each resource that would be made unavailable to the public due to construction or maintenance activities; and
- Post a public notice which identifies alternative recreational areas at USFS Ranger Stations within the ANF and at all recreational areas to be closed due to construction or maintenance activities.
SRM R-1c: Notification of temporary closure of Off-Highway Vehicle routes. To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV routes which would be closed or otherwise made unavailable for use as a result of Project construction and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

SRM R-1d: Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails. LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

Environmental Effects of Specifically Recommended Mitigation Measure SRM R-1d
When Specifically Recommended Mitigation Measure SRM R-1d is recommended to reduce impacts to recreationists using the PCT or other trails, this measure may adversely affect other issue areas. A trail diversion could potentially disturb sensitive biological resources or could possibly damage cultural resources that may be located along the diverted route. Such potential impacts are similar to the effects of other Project activities, and would require the implementation of mitigation measures presented in the BRRTP technical reports prepared for Biological and Cultural Resources.

SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project. Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

Implementation of Specifically Recommended Mitigation Measures SRM R-1a, SRM R-1b, SRM R-1c, SRM R-1d, and SRM R-1e, as described above, would reduce Impact R-1 to a less than significant level.

Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas
During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible.

Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities,
thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. Implementation of GP-50 would coordinate operation/maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

**SUBSTANTIALLY CONTRIBUTE TO THE LONG-TERM LOSS OR DEGRADATION OF THE FACTORS THAT CONTRIBUTE TO THE VALUE OF FEDERAL, STATE, LOCAL, OR PRIVATE RECREATIONAL FACILITIES OR AREAS (CRITERION LU8)**

Construction or operation and maintenance would contribute to the loss or degradation of recreational facilities or areas if such activities permanently preclude access, permanently remove parts or all of the affected area from being utilized for its intended purpose, or result in degradation such that the intended recreational use is permanently lost.

**Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail**

This initially high impact addresses the potential loss or degradation of physical aspects of the PCT, as well as the potential loss or degradation of the backcountry experience that recreationists using the PCT expect to have. Effects to the recreational experience of the PCT are included as part of this impact analysis because the PCT is a designated National Scenic Trail which, by this designation, is meant to be a continuous protected scenic corridor for outdoor recreation. As such, the recreational experience of the PCT is unique to other recreational resources and is considered to be an integral aspect of the trail.

The PCT would be physically affected if any of the following events were to occur in connection with Project construction or operation and maintenance:

- Permanent closure of parts of the trail;
- Installation of infrastructure within or adjacent to the trail in a way that would prevent that area from being used in the future;
- Any other activity that would physically remove parts of the PCT from use.

Additionally, loss or degradation of the backcountry experience considered intrinsic to the PCT would occur under the following circumstances associated with construction or operation and maintenance:

- Installation of infrastructure contrasts substantially with natural aesthetics currently existing along the PCT;
- Noise levels introduced through activities are substantially greater or have substantially different characteristics from existing conditions along the PCT;
- Any other activity substantially contrasts with the existing primarily undeveloped character and/or experience of the PCT.

As described here, visual resources and noise both contribute to the pristine backcountry experience of the PCT; visual and noise aspects are only discussed here in terms of their contributions to recreation, not in...
terms of specific visual and noise impacts that would be introduced. The Visual Resource Technical Report and noise analysis in the EIR/EIS will introduce mitigation for these specific impacts.

Construction of the proposed Project would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the proposed Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures (which would be larger than existing transmission towers), the following specifically recommended mitigation measures would be required to minimize such effects:

- SRM R-1a (Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas)
- SRM R-1d (Notification of temporary closure and reroute of the PCT)
- SRM R-1e (Compensate ANF for lost income from Adventure Pass sales)

Recreational opportunities along the PCT are particularly valued for the solitude and natural setting of the trail, which characterizes the majority of its length. Implementation of the mitigation measures described above would reduce impacts to the recreational experience of the PCT to a moderate or less than significant impact.

Impact R-4: The Project would contribute to degradation of Off-Highway Vehicle routes, or would result in a loss of recreational opportunity for OHV users

Impact R-4 would occur if existing OHV routes or designated OHV areas are permanently removed from use as a result of Project activities. Construction or operation and maintenance activities could result in the long-term loss or degradation of OHV routes if such activities would require that OHV routes be repeatedly and/or frequently closed due to maintenance activities, or if OHV routes are permanently closed or altered.

It is expected that during Project construction, the transport of construction vehicles and equipment to transmission structure sites would require that access roads be upgraded to OML 3 standards, to accommodate the large size of construction vehicles, equipment, and materials. Upgrading of roads designated as OML 2 to OML 3 standards during the construction period would result in temporary restriction of OHV use, or temporary loss of OHV opportunities, until the affected roads are returned to OML 2 conditions. Operation and maintenance of the proposed Project in most areas would require that ground-access be available to all transmission structure sites; however, operation and maintenance would not require the heavy equipment required during Project construction and, therefore, roads designated as OML 2 or other means of access such as foot trails or helicopter landing zones would be sufficient to accommodate operation and maintenance activities. Any road upgrades that are applied during the construction period would be strictly temporary; no permanent upgrades to existing OML standards would occur as a result of the proposed Project. Therefore, any loss of recreational opportunity to OHV users would be temporary in nature.

Specifically Recommended Mitigation Measures for Impact R-4

To minimize the effects of Impact R-4, Specifically Recommended Mitigation Measure SRM R-1c (Notification of Temporary Closure of OHV Routes) and SRM R-2 (Avoid Permanent Upgrades to NFS roads) are recommended.

SRM R-1c: Notification of temporary closure of Off-Highway Vehicle routes. To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV routes which would be closed or otherwise made unavailable for use as a result of Project construction.
and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

**SRM R-2 Avoid permanent upgrades to National Forest System roads.** LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

*Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2*

While Specifically Recommended Mitigation Measure R-2 is recommended to avoid the permanent loss of OHV routes on OML 2 designated roads, this measure may adversely affect other issue areas. The activities that would be associated with returning improved roads to existing maintenance practices would require earthmoving equipment, which would increase construction noise within the ANF. Earthmoving and other equipment that may be required for this measure would also contribute to additional air quality emissions. In addition, greater land disturbance as a result of road activities would contribute to increased soil erosion, which would potentially affect water quality.

Such potential impacts are similar to the effects of other Project activities, and would require the implementation of mitigation measures such as those presented in the Water Resources and Air Quality Technical Reports.

**Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities**

Long-term loss or degradation of recreational opportunities could occur through unmanaged or unauthorized use of such resources. Unmanaged recreation could occur if the Project facilitates access to areas that are not intended or suitable for certain recreational uses, particularly through the creation or improvement of roadways in the ANF. Two types of roads are associated with construction and operation: access roads and spur roads. Access roads are through-ways that serve as the main transportation route along the Project ROW, whereas spur roads are smaller roads that connect access roads directly to tower sites and are not considered part of the Forest System roads. Unmanaged recreation activities (particularly OHV-related) currently occur throughout the ANF via existing spur roads and utility corridors.

During construction and operation, existing roadways would be utilized wherever possible to accommodate necessary traffic of vehicles and equipment. However, installation of new roads and improvement of existing roads would also be required in order to provide access to the proposed route during construction and operation activities. In some areas, improvement of existing roads and installation of new roads may provide access to areas that are not currently accessible by roads. As a result, these new and improved roads could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes, as described above.

Table 6-5 provides roads that may be used and/or improved during construction and/or operation and maintenance activities. Identification of the specific roads and necessary improvements required for Project construction will be determined in LADWP’s Project Road Plan, which is included as part of final engineering. Table 6-5 also indicates the ROS class designated for each roadway in the Project vicinity; these ROS designations are indicative of the types of recreational activities the USFS intends to
encourage in the area. If unmanaged or unauthorized OHV use occurs in an area that is incompatible with OHV recreation (for instance, ROS Semi-Primitive Non-Motorized) as a result of road improvements in the area, such unmanaged recreation would be contrary to Forest management objectives of the relevant OHV-incompatible ROS designation.

Additionally, it is possible that some OML 1 roads may need to be upgraded to OML 2 or higher to facilitate Project construction access. Such upgrades would essentially create new roads that are passable by OHVs and, as a result, some OHV recreationists may choose to participate in OHV recreation on these improved roads, regardless of whether such roads are intended by the Forest to be managed for OHV use. The installation of new access or spur roads where none currently exist would have the potential to facilitate unmanaged recreational uses. As discussed, of particular concern with regards to unmanaged recreation in the Forest is the potential for OHV recreationists to use Project roads to operate OHVs in areas where such use is prohibited by Forest management goals and objectives. It is possible that in an effort to control unmanaged recreation and the associated impacts, the USFS may decide to close public access to some areas of the ANF, which would remove recreational opportunities in the ANF.

**Specifically Recommended Mitigation Measure for Impact R-5**

To minimize the effects of Impact R-5, Specifically Recommended Mitigation Measure SRM R-2 (Avoid Permanent Upgrades to NFS roads) and SRM R-3 (Installation of Physical Barriers) are recommended.

**SRM R-2 Avoid permanent upgrades to National Forest System roads.** LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the

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**TABLE 6-5. NATIONAL FOREST SYSTEM ROADS POTENTIALLY UTILIZED BY PROJECT**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Road</th>
<th>ROS Class</th>
<th>Description</th>
<th>Crossed</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2</td>
<td>Leona Divide Fire Road (6N04.1) (OHV)</td>
<td>Semi-Primitive Motorized</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>H2</td>
<td>Artesian Springs Road 6N08 (OHV)</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>H2</td>
<td>Martindale Ridge Road 6N06</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>D, J</td>
<td>Dry Canyon Road - 5N29</td>
<td>Semi-Primitive Motorized</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>H2</td>
<td>Quarry Road 8N19 (OHV)</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>H2, K</td>
<td>Saugus - Del Sur Road (6N18) (OHV)</td>
<td>Semi-Primitive Motorized</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>H, G, ABG-Reconstructor</td>
<td>Pettinger Canyon Rd (5N28)</td>
<td>Semi-Primitive Motorized</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>G, D, J, ABG-Reconstructor</td>
<td>City Highline Motorway FR Rd (6N21) (OHV)</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>G, ABG-Reconstructor, 2a</td>
<td>Burns Road (7N01) (OHV)</td>
<td>Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>G, ABG-Reconstructor, 2a</td>
<td>Leona Divide Fire Road 6N04.2 (OHV)</td>
<td>Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>G, ABG-Reconstructor, 2a</td>
<td>South Portal Road 7N02 (OHV)</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>D</td>
<td>Old Ridge Road (8N04) (OHV)</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>bituminous surface treatment</td>
<td>x</td>
</tr>
<tr>
<td>D</td>
<td>Reservoir Summit Road 7N26.1</td>
<td>Semi-Primitive Motorized, Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>D</td>
<td>Liebre Gulch 8N01 (OHV)</td>
<td>Semi-Primitive Motorized/Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
<tr>
<td>D</td>
<td>Forest Inn Road - 6N43</td>
<td>Roaded Natural</td>
<td>native material</td>
<td>x</td>
</tr>
</tbody>
</table>
Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to *Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2*, above. Implementation of this specifically recommended mitigation measure would require coordination between LADWP and the USFS in developing and implementing necessary road improvements in a way that is consistent with existing OML designations.

**SRM R-3: Installation of physical barriers.** LADWP would install physical barriers to prevent illegal OHV use to the extent feasible. LADWP will place and maintain barriers, such as boulders or rail fencing, during restoration of temporary work sites. In addition, LADWP would place gates at permanent LADWP roads where public use is not allowed.

Improvement of existing roads and construction of new access and spur roads associated with the Project could facilitate unmanaged recreational uses, particularly OHV use, within the ANF. In order to minimize the potential for unmanaged recreation to occur, implementation of SRM R-2 and SRM R-3 would be required. With implementation of these mitigation measures, Impact R-5 would be reduced to a less than significant level.

### 6.3 IMPACT RESULTS BY SEGMENT: NEW 230 KV TRANSMISSION LINE

The following section provides an evaluation of the potential land use impacts by segment. This evaluation is based upon the land use impact criteria and assessment methodology outlined in Section 6.1. Construction of the segments could affect aviation activities by modifying aircraft operations and air navigation. Transmission structure/component assembly and installation activities and subsequent placement could affect aircraft movement within the vicinity of tower pad locations due to their height. Tower heights would range between 110 feet and 195 feet. Prior to construction, LADWP will consult with the FAA and ensure the filing of all forms and associated specifications per the requirements of Federal Aviation Regulations (FAR) Title 14, Part 77. Final locations, structures, and structure heights, including transmission lines, and construction-related equipment or facilities that might impact air navigation would be submitted to the FAA for the Project. In addition, prior to the start of construction, LADWP will consult with all affected Airport Land Use Commissions (or their alternative process) and the USFS and BLM to ensure that construction, operation, and maintenance of the Project does not conflict with local aircraft operations or associated safety provisions. Coordination/consultation with the DoD will be conducted regarding the location and potential effects/conflicts of the Project upon operations or training activities in military airspace.

#### 6.3.1 Segment A

**Land Use**

**Impact LU-1:** Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by segment.

**Impact LU-3:** Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as livestock grazing and recreation. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads. While construction activities would temporarily disturb grazing land, the impact is considered to be
less than significant. Air facilities (public, private and military) are also located in close proximity as well as in the region. With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

**Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.**

Segment A would require a new ROW. The ROW would partially fall within the boundaries of the Mojave Specific Plan area. The Segment would also traverse or lie adjacent to portions of undeveloped residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.

As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

Residences are not traversed by Segment A.

**Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.**

Segment A would traverse approximately 6.6 miles of Solar Verified Renewable Energy (VRE) ROW on BLM public land (Ridgecrest Field Office). Several applications for planned solar energy projects in the area have been submitted to the BLM and are pending review.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

**Impact LU-6: Operation would conflict with military operations.**

Segment A is located within a portion of the 20,000-square-mile R-2508 military range complex. The R-2508 Complex includes all the airspace and associated land presently used and managed by three principal military activities in the Upper Mojave Desert region: Air Force Flight Test Center, Edwards Air Force Base; National Training Center, Fort Irwin; and Naval Air Warfare Center Weapons Division, China Lake. LADWP would provide a complete copy of the Proposed Project’s application, including the location of the entire transmission line alignment and the heights of structures to be located to the Department of Defense.

Review by the Department of Defense would ensure that the Proposed Project would not conflict with military operations.
Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.

Future energy transport projects could be located within a designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of the project, the project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would depend directly on the existing land use in the project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.

Agricultural Resources
No impacts identified.

Recreation
Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

There are no developed parks, recreation, and preservation facilities within one mile of Segment A. Dispersed recreation does occur on BLM public land within two SRMAs. While construction activities could temporarily disturb dispersed recreational activities, the impact is considered to be less than significant.

*Specifically Recommended Mitigation Measures for Impact R-1*

**SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:
• Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
• Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
• Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

Implementation of Specifically Recommended Mitigation Measure SRM R-1a, as described above, would further reduce Impact R-1.

6.3.2 Segment B

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by Segment.

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

With the exception of existing residential development in the vicinity of northwestern Lancaster, residential uses are generally rural. However, construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture and recreation. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads. Air facilities (public, private and military) are also located in close proximity, as well as in the region.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment B would require a new ROW. The ROW would partially fall within the boundaries of the Mojave, Soledad Mountain-Elephant Butte, and Willow Springs Specific Plan areas. The Segment would
also traverse or lie adjacent to portions of undeveloped residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.

As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

Residences are not traversed by Segment B.

*Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.*

Segment B would traverse land planned for wind development (Alta-Oak Creek Mojave Wind Energy Project). The project is currently under Kern County review.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

**Agricultural Resources**

*Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland.*

Segment B would be constructed across 1.4 miles of Prime Farmland, 1.1 miles of Unique Farmland, and 2.6 miles of Farmland of Statewide Importance, totaling a distance of 5.1 miles of Farmland traversed. Construction activities across these lands would include the construction and assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Farmland would be minimized such that impacts would be considered adverse, but not significant.

*Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.*

As described above for Impact AG-1, Segment B would traverse 1.4 miles of Prime Farmland, 1.1 miles of Unique Farmland, and 2.6 miles of Farmland of Statewide Importance and would include access and spur roads, transmission structures, and stringing and pulling sites. While the stringing and pulling sites would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to land uses, including Farmland.
While Segment B would have Farmland temporarily converted to non-agricultural uses as described under Impact AG-1, only 5.83 acres of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland under Segment B to non-agricultural uses would be considered adverse, but not significant.

While Segment B would have a large area of Farmland temporarily converted to non-agricultural uses as described under Impact AG-1, a lesser amount of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland to non-agricultural uses would be considered adverse, but not significant.

Impact AG-3: Construction activities would interfere with agricultural operations.

Segment B would be constructed across approximately 3.5 miles of agricultural land (cropland). Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Impact AG-4: Operation would interfere with agricultural operations.

Segment B would cross approximately 3.5 miles of agricultural land. Operation and maintenance of Segment B would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to
agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect trails maintained by the Los Angeles County Department of Parks and Recreation. Other trails in the area include small dirt roads that are known to be informally used by OHV recreationists. There are no developed parks or other established recreation areas that could be affected by Impact R-1.

The nearest designated recreational area to the Segment is the Antelope Valley California Poppy Reserve, located approximately one mile southwest of the route. The California Poppy Reserve is located on Lancaster Road, which is accessible via Highway 14 and Interstate 5. Construction activities would not restrict access to the California Poppy Reserve or disrupt recreational activities at this site.

Segment B would cross through an area of Los Angeles County that includes a network of multiuse trails which are managed by the Los Angeles County Department of Parks and Recreation. Los Angeles County trails that would be traversed in this area include the California Poppy Trail and Little Buttes Trail. During construction activities in these locations, the trails would be temporarily restricted from public use. As mentioned, such restriction would be temporary and of a short duration, lasting only long enough to complete installation of Project infrastructure at each trail crossing.

Specifically Recommended Mitigation Measures for Impact R-1

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

Implementation of Specifically Recommended Mitigation Measure SRM R-1a, as described above, would reduce Impact R-1 to a less than significant level.
Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Segment B is largely characterized by rural residences, open space and undeveloped land with few recreational resources or opportunities. Recreational resources include multi-use trails maintained by the Los Angeles Department of Parks and Recreation. It is not expected that road improvements associated with construction and operation would lead to unauthorized recreational uses. Degradation of recreational resources resulting from unauthorized recreation are not anticipated along Segment B.

6.3.3 Segment C

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by Segment.

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Residential uses along Segment C are generally rural. However, construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture and recreation. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads. Air facilities (public, private and military) are also located in close proximity, as well as in the region.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones, may in some site-specific circumstances, could still be adverse.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment C would require new ROW. The ROW would partially fall within the boundaries of the Mojave and Willow Springs Specific Plan areas. The Segment would also traverse or lie adjacent to portions of undeveloped residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.
As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

No residences are traversed by Segment C.

**Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.**

Segment C would traverse land planned for wind development (Alta-Oak Creek Mojave and PDV Wind Energy Projects).

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

**Agricultural Resources**

**Impact AG-5 Conflict with Williamson Act contract lands**

Segment C would cross 0.7 miles of land under Williamson Act contract in Kern County. The land is currently not under active cultivation. Construction activities across this land would include the construction, and assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire. Construction in this area would require the use of graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling.

While stringing and pulling disturbed areas would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to lands under Williamson Act contract.

Although Segment C would result in both temporary and permanent conversion of lands under Williamson Act contracts, because the Project is an electrical infrastructure project, these components are considered to be allowable uses under Williamson Act contracts. Consequently, there would be no conflict with Williamson Act contracts.
Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect the Pacific Crest Trail (PCT). There are no developed parks or other established recreation areas that could be affected by Impact R-1. Most of Segment C is characterized by open space and undeveloped land.

During construction activities in these locations (see Chapter 2, Project Description), the PCT would be temporarily restricted from public use. As mentioned, such restriction would be temporary and of a short duration, lasting only long enough to complete installation of Project infrastructure at each trail crossing.

Specifically Recommended Mitigation Measures for Impact R-1

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

Implementation of Specifically Recommended Mitigation Measure SRM R-1a, as described above, would reduce Impact R-1 to a less than significant level.

Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Segment C is largely characterized by rural residences, open space and undeveloped land with few recreational resources or opportunities. Recreational resources include the PCT. It is not expected that road improvements associated with construction and operation would lead to unauthorized recreational uses. Degradation of recreational resources resulting from unauthorized recreation are not anticipated along Segment C.

6.3.4 Segment D

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents the consistency with applicable land use plans and policies by segment.
Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Existing residential development along Segment D is located primarily in the Neenach and Castaic areas. Construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture (livestock grazing and apiaries) and recreation. Segment D also traverses multiple land use zones and places within the ANF. Additionally, areas adjacent to the proposed ROW are used for utilities (including access roads), as well as institutional (church), and industrial facilities. Public, private, and military airports and air fields are also located in close proximity as well as in the region. In addition, Segment D would traverse USFS land use zones, and Places within the ANF. Although the desired condition and program emphasis for each Place do not specifically address transmission lines, construction of Segment D would occur within an existing designated utility corridor; consequently, construction of Segment D would not impact the Places it would traverse.

Within the ROW itself, construction-related activities associated with structure assembly and installation, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Access to these land uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. While construction would temporarily disturb grazing land, the impact is considered to be less than significant. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones, may in some site-specific circumstances, still be adverse.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment D would require new ROW. The ROW would partially fall within the boundaries of the Willow Springs and planned Centennial Specific Plan areas. The Centennial project is envisioned to be a 23,000-home master-planned community with civic squares, parks, shops, fire stations, schools, and other services. The planned Centennial Specific Plan is in the initial stages of the EIR process, and a Notice of Preparation of a draft EIR were distributed by LA County to the public in March of 2004. The segment
would also traverse or be adjacent to portions of undeveloped residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.

As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

No residences are traversed by Segment D.

Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.

Segment D would traverse, or fall within one-half mile of, lands used for other purposes than residential, agricultural, or recreational development. Property that is owned by the Westside Union School District (WUSD) (existing vacant Neenach School) is also traversed. Additionally, the segment falls within one-half mile of properties under the ownership or management of federal, state, and local agencies. No impacts to ANF non-residential land uses are anticipated.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

Agricultural Resources

Impact AG-3: Construction activities would interfere with agricultural operations.

Segment D would be constructed across approximately 2.8 miles of agricultural land (cropland). This cropland has also been classified as Farmland of Local Importance. Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity.
Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Impact AG-4: Operation would interfere with agricultural operations.**

Segment D would cross approximately 2.8 miles of agricultural land (cropland). This cropland has also been classified as Farmland of Local Importance. Operation and maintenance of Segment D would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Recreation**

**Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.**

Impact R-1 would affect use of the Castaic Lake State Recreation Area, the PCT, and multiuse trails managed by the Los Angeles County Department of Parks and Recreation (i.e., Castaic Lake Trail, Cliffie Stone Trail). During construction activities in these locations (see Chapter 2, Project Description), areas and trails would be temporarily restricted from public use.

Dispersed recreation opportunities would also be affected by Impact R-1 due to temporary access restrictions during the construction period, as along with possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. The degree to which dispersed recreation opportunities would be affected by Impact R-1 depends upon which ROS designation is affected by closures or restrictions related to construction. In general, recreational activities within and adjacent to the ROW will be temporarily suspended during Project construction.

In addition, other recreational resources may be temporarily restricted from use due to access restrictions resulting from the use of NFS roads for construction activities. Identification of the exact roads and necessary improvements that would be required during construction would be acknowledged through a Project Road Plan, which would be produced during final engineering for the Project. NFS roads potentially identified include those found in Table 6-5. As a result, these roads would have the potential to be affected by Impact R-1 as a result of construction-related road closures.

Recreational hunting activities permitted in Zone D-11 would be affected by Impact R-1 as a result of construction noise, traffic, and road closures. The aspect of Project construction which would likely be
most disruptive to recreational hunting activities is road closures that would potentially restrict hunters from accessing certain areas of the ANF. In addition to road closures that could restrict hunters’ movement through the Forest, recreational hunting could also be affected by aspects of Project construction such as noise from heavy equipment that may affect the presence and movement of wildlife. Project construction activities that occur outside of the designated hunting season(s) would have no effect on recreational hunting in Zone D-11.

Temporary access restrictions to established recreational areas or disruption of activities within such areas as a result of Project construction would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands. Coordination between LADWP and the USFS regarding road improvements and construction timelines will facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under Impact R-1. The following specifically recommended mitigation measures, described below, would help to reduce the significance of Impact R-1.

Specifically Recommended Mitigation Measures for Impact R-1

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

SRM R-1b Identify and provide noticing of alternative recreation areas. To the extent feasible, LADWP shall coordinate with the authorized recreation officer(s) or the agencies of all recreational areas affected by construction and maintenance activities, including but not limited to those listed under SRM R-1a (Coordinate construction schedule and maintenance activities with managing officer[s] for affected recreation areas), the purpose of which is to accomplish the following:

- Identify recreational areas (i.e., trails, parks, day-use areas) that would be closed during Project construction or maintenance activities;
- To the extent feasible, identify alternative recreational areas for each resource that would be made unavailable to the public due to construction or maintenance activities; and
- Post a public notice which identifies alternative recreational areas at USFS Ranger Stations within the ANF and at all recreational areas to be closed due to construction or maintenance activities.
SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails. LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project. Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

Implementation of Specifically Recommended Mitigation Measures SRM R-1a, SRM R-1b, SRM R-1d, and SRM R-1e, as described above, would reduce Impact R-1 to a less than significant level.

Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as Segment D is located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with
federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

Segment D would also require the granting of a ROW across the Castaic Lake State Recreation Area which has received LWCF grant funding. This conversion of land would constitute a conflict with the LWCF. Implementation of providing replacement property, undergrounding or avoidance would prevent the transmission line route’s non-compliance with the LWCF, resulting in a low impact.

Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT).

Segment D would include two crossings of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Although this type of noise would be disturbing, it would be temporary and would not lead to permanent degradation of the backcountry experience enjoyed by PCT recreationists. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result. Additionally, the proposed Project would not change the existing types of land uses and recreational opportunities along or adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures (which would be larger than existing transmission towers), the following specifically recommended mitigation measures would be required to minimize such effects.

Specifically Recommended Mitigation Measures for Impact R-1
SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.
SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails. LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project. Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

Implementation of the specifically recommended mitigation measures described above would reduce impacts to the recreational experience of the PCT to a less than significant level.

Impact R-4: Contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.

Impact R-4 would occur if existing OHV routes are permanently removed from use as a result of Project activities. Construction or operation and maintenance activities could result in the long-term loss or degradation of OHV routes if such activities would require that OHV routes or trails be repeatedly and/or frequently closed due to maintenance activities, or if OHV routes are permanently closed or altered.

Developed recreation resources crossed or adjacent to Segment D include three OHV routes (8N04 (currently under a temporary closure), 8N01, and 6N21). It is expected that during construction, the transport of construction vehicles and equipment to transmission structure sites would require that access roads be upgraded to OML 3 standards to accommodate the large size of construction vehicles, equipment, and materials. Upgrading of roads designated as OML 1 or 2 to OML 3 standards during the construction period would result in temporary restriction of OHV use, or temporary loss of OHV opportunities, until the affected roads are returned to OML 2 conditions. Operation and maintenance activities would require that ground-access be available to all transmission structure sites; however, operation and maintenance would not require the heavy equipment required during construction and, therefore, roads designated as OML 2 would be sufficient to accommodate operation and maintenance activities. Road upgrades that are applied during the construction period would be strictly temporary; no permanent upgrades to existing OML standards would occur as a result of the proposed Project. Therefore, any loss of recreational opportunity to OHV users would be temporary in nature.

Impact R-4 would also apply to OHV routes that would need to be improved or upgraded to accommodate construction vehicle traffic. As described in Table 5-6 (ANF Roadway Operational Maintenance Level [OML] Guidelines), OHV use is restricted to roads maintained to OML 2 due to safety concerns associated with passenger vehicles and OHVs traveling on the same roadways (OML 2
roads are not accessible by passenger vehicles). If an OML 2 road is required for construction access during Project installation, roadway requirements associated with construction vehicle access would require that upgrades comparable to OML 3 would need to be applied, thereby temporarily disrupting OHV activity during the construction period. However, any such road improvements would be temporary and would not be maintained following the Project construction period; designated OMLs would not be permanently altered.

It is also possible that in reaction to existing OHV routes being restricted during construction. Some OHV recreationists may choose to utilize illegal OHV routes or create new, unauthorized OHV routes in the Forest, thereby participating in unmanaged or unauthorized recreational uses. Please see Impact R-5.

Specifically Recommended Mitigation Measures for Impact R-4

To minimize the effects of Impact R-4, Specifically Recommended Mitigation Measure SRM R-1c (Notification of Temporary Closure of OHV Routes) and SRM R-2 (Avoid Permanent Upgrades to NFS roads) are recommended.

SRM R-1c Notification of temporary closure of Off-Highway Vehicle routes. To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV routes which would be closed or otherwise made unavailable for use as a result of Project construction and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

SRM R-2 Avoid permanent upgrades to National Forest System roads. LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2, above.

Implementation of this specifically recommended mitigation measure would require coordination between LADWP and the USFS in developing and implementing necessary road improvements in a way that is consistent with existing OML designations. Due to the availability of OHV opportunities throughout the ANF and the temporary nature of Impact R-4 to OHV opportunities along the Segments, the provision of compensatory recreation opportunities is not considered a necessary mitigation for this impact. Implementation of the mitigation measures listed above would reduce Impact R-4 to a less than significant level.

Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Multi-use trails maintained by the Los Angeles Department of Parks and Recreation are concentrated in the southern portion of Segment D (i.e., Castaic Lake Trail, Cliffie Stone Trail). It is not expected that road improvements associated with construction and operation activities would lead to unauthorized recreational uses.
Within the ANF, existing roads would be utilized to the fullest extent possible during construction and operation. Roadway improvements would be required in some areas, particularly for hillside structures. The creation of new roads and the improvement of existing roads could potentially facilitate OHV access to areas of the ANF that are not authorized for OHV use, which would contribute to resource damage and degradation. It is expected that construction activities would require that some roads in the Forest be upgraded to OML 3 standards, which would preclude the use of OHVs; such preclusion or restriction from use may encourage some OHV recreationists to utilize other roads in the areas which may not necessarily be designated for OHV use, thereby participating in unmanaged recreation.

Table 6-5 provides roads that may be used and/or improved during construction and/or operation and maintenance activities. Identification of the specific roads and necessary improvements required for Project construction will be determined in LADWP’s Project Road Plan, which is included as part of final engineering. Table 6-5 also indicates the ROS class designated for each roadway in the Project vicinity; these ROS designations are indicative of the types of recreational activities the USFS intends to encourage in the area. If unmanaged or unauthorized OHV use occurs in an area that is incompatible with OHV recreation (for instance, ROS Semi-Primitive Non-Motorized) as a result of road improvements in the area, such unmanaged recreation would be contrary to Forest management objectives of the relevant OHV-incompatible ROS designation.

Additionally, it is possible that some OML 1 roads may need to be upgraded to OML 2 or higher to facilitate Project construction access. Such upgrades would essentially create new roads that are passable by OHVs and as a result, some OHV recreationists may choose to participate in OHV recreation on these improved roads, regardless of whether such roads are intended by the Forest to be managed for OHV use. The installation of new access or spur roads where none currently exist would have the potential to facilitate unmanaged recreational uses. As discussed, of particular concern with regards to unmanaged recreation in the Forest is the potential for OHV recreationists to use Project roads to operate OHVs in areas where such use is prohibited by Forest management goals and objectives. Improvement of existing roads and construction of new access and spur roads associated with the proposed Project could also facilitate unmanaged recreational uses, particularly OHV use, within the ANF.

Specifically Recommended Mitigation Measures for Impact R-5
To minimize the effects of Impact R-5, Specifically Recommended Mitigation Measure SRM R-2 (Avoid Permanent Upgrades to Forest System Roads) and SRM R-3 (Installation of Physical Barriers) are recommended.

SRM R-2 Avoid permanent upgrades to National Forest System roads. LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2, above.

SRM R-3: Installation of physical barriers. LADWP would install physical barriers to prevent illegal OHV use to the extent feasible. LADWP will place and maintain barriers, such as boulders or rail fencing, during restoration of temporary work sites. In addition, LADWP would place gates at permanent LADWP roads where public use is not allowed.
Implementation of these specifically recommended mitigation measure would require coordination between LADWP and the USFS in developing and implementing necessary road improvements in a way that is consistent with existing OML designations. Due to the availability of OHV opportunities throughout the ANF and the temporary nature of Impact R-4 to OHV opportunities along the Segments, the provision of compensatory recreation opportunities is not considered a necessary mitigation for this impact. With implementation of these mitigation measures, Impact R-5 would be reduced to a less than significant level.

### 6.3.5 Segment E

**Land Use**

**Impact LU-1:** Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by Segment.

**Impact LU-2:** Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Residential uses along Segment E are generally rural. However, construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

**Impact LU-3:** Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture and recreation. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads. Air facilities (private and military) are also located in close proximity, as well as in the region.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones, may in some site-specific circumstances, still be adverse.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

**Impact LU-4:** Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment E would require new ROW. The ROW would partially fall within the boundaries of the Willow Springs Specific Plan area. The segment would also traverse or lie adjacent to portions of undeveloped residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.
As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

No residences are traversed by Segment E.

**Impact LU-5: Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses.**

Segment E would traverse land planned for the AVEK Groundwater Recharge Area Project.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

**Agricultural Resources**

**Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland.**

Segment E would be constructed across 4.5 miles of Prime Farmland. Construction activities across these lands would include the construction, and assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Farmland would be minimized such that impacts would be considered adverse, but not significant.

**Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.**

As described above for Impact AG-1, Segment E would traverse 4.5 miles of Prime Farmland and would include access and spur roads, transmission structures, and stringing and pulling sites. While the stringing and pulling sites would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to land uses, including Farmland.

While Segment E would have a large area of Farmland temporarily converted to non-agricultural uses as described under Impact AG-1, a lesser amount of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable...
agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland to non-agricultural uses would be considered adverse, but not significant.

Impact AG-3: Construction activities would interfere with agricultural operations.

Segment E would be constructed across approximately 5.8 miles of agricultural land (cropland). Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Impact AG-4: Operation would interfere with agricultural operations.

Segment E would cross approximately 5.8 miles of agricultural land. Operation and maintenance of Segment E would result in the presence of a 230 kV transmission lines, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Impact AG-5 Conflict with Williamson Act contract lands

Segment E would cross 3.2 miles of land under Williamson Act contract in Kern County. The land is partially under active cultivation. Construction activities across this land would include the construction, and assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire. Construction in this area would require the use of graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling.
While stringing and pulling disturbed areas would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to lands under Williamson Act contract.

Although Segment E would result in both temporary and permanent conversion of lands under Williamson Act contracts, because the Project is an electrical infrastructure project, these components are considered to be allowable uses under Williamson Act contracts. Consequently, there would be no conflict with Williamson Act contracts.

Recreation
Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect a trail maintained by the Los Angeles County Department of Parks and Recreation. There are no developed parks or other established recreation areas that could be affected by Impact R-1.

The nearest designated recreational area to the Segment is the Antelope Valley California Poppy Reserve, located immediately one-half mile southwest of the route. The California Poppy Reserve is located on Lancaster Road, which is accessible via Highway 14 and Interstate 5. Construction activities would not restrict access to the California Poppy Reserve or disrupt recreational activities at this site.

Segment E would cross through an area of Los Angeles County that includes a multiuse trail (California Poppy Travel) which is managed by the Los Angeles County Department of Parks and Recreation. During construction activities in this location, the trail would be temporarily restricted from public use. As mentioned, such a restriction would be temporary and of a short duration, lasting only long enough to complete installation of Project infrastructure at the trail crossing.

Specifically Recommended Mitigation Measures for Impact R-1
SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.
Implementation of Specifically Recommended Mitigation Measure SRM R-1a, as described above, would reduce Impact R-1 to a less than significant level.

**Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.**

Segment E is largely characterized by rural residences, open space and undeveloped land with few recreational resources or opportunities. Recreational resources include a multi-use trail maintained by the Los Angeles Department of Parks and Recreation. It is not expected that road improvements associated with construction and operation would lead to unauthorized recreational uses. Degradation of recreational resources resulting from unauthorized recreation would not occur along Segment E.

### 6.3.6 115th Street Modification

**Land Use**

At a localized scale, construction-related impacts associated with the rural residences situated along Segments F2 and H2 would be substantially reduced under the 115th Street Modification. Re-routing along this portion of the 115th Street Modification would shift the majority of transmission line construction to the west of these residences by a distance of up to 1.5 miles.

Construction would temporarily disrupt existing residential land uses (Impact LU-2). During construction, temporary traffic, noise, and air quality impacts would occur to residences located within 1,000 feet of the route. Land use impacts resulting from the construction of the 115th Street Modification would be significant but mitigable. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

The 115th Street Modification would require new ROW (Impact LU-4). As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

Operation and maintenance would have the potential to create long-term disruptions to existing and planned residential land uses. Preclusion of, and incompatibility with, existing undeveloped and/or planned residential developments within proposed new ROWs would be considered an adverse but less than significant impact. No specific mitigation measures are recommended.

**Agricultural Resources**

No impacts identified.
Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect (by crossing) a multiuse trail maintained by the Los Angeles County Department of Parks and Recreation. There are no developed parks or other established recreation areas that could be affected by Impact R-1.

The nearest designated recreational area to the route is the Antelope Valley California Poppy Reserve, located two miles northwest of the alignment. The California Poppy Reserve is located on Lancaster Road, which is accessible via Highway 14 and Interstate 5. Construction activities would not restrict access to the California Poppy Reserve or disrupt recreational activities at this site.

During construction activities in this location, the trail would be temporarily restricted from public use. As mentioned, such a restriction would be temporary and of a short duration, lasting only long enough to complete installation of Project infrastructure at the trail crossing.

Specifically Recommended Mitigation Measures for Impact R-1

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

Implementation of Specifically Recommended Mitigation Measure SRM R-1a, as described above, would reduce Impact R-1 to a less than significant level.

Impact R-5: The Project would facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

The 115th Street Modification is largely characterized by rural residences, open space and undeveloped land with few recreational resources or opportunities. Recreational resources include a multi-use trail maintained by the Los Angeles Department of Parks and Recreation. It is not expected that road improvements associated with construction and operation would lead to unauthorized recreational uses. Degradation of recreational resources resulting from unauthorized recreation are not anticipated along 115th Street Modification.
6.3.7 Segment F (includes F1 and F2)

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by segment.

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Residential uses along Segments F1 and F2 are generally rural. However, construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as recreation. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads. Air facilities (private and military) are also located in close proximity as well as in the region.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones, may in some site-specific circumstances, still be adverse.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment F would require new ROW. The ROW would partially fall within the boundaries of the Willow Springs Specific Plan area. The Segment would also traverse or be adjacent to portions of undeveloped residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.

As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.
LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

No residences are traversed by Segment F2.

Agricultural Resources

No impacts identified.

Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect (by crossing) a multiuse trail maintained by the Los Angeles County Department of Parks and Recreation (California Poppy Trail). There are no developed parks or other established recreation areas that could be affected by Impact R-1.

The nearest designated recreational area to the segment is the Antelope Valley California Poppy Reserve, located one mile northwest of the route. The California Poppy Reserve is located on Lancaster Road, which is accessible via Highway 14 and Interstate 5. Construction activities would not restrict access to the California Poppy Reserve or disrupt recreational activities at this site.

During construction activities in this location, the trail would be temporarily restricted from public use. As mentioned, such a restriction would be temporary and of a short duration, lasting only long enough to complete installation of Project infrastructure at the trail crossing.

Specifically Recommended Mitigation Measures for Impact R-1

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies. Implementation of Specifically Recommended Mitigation Measure SRM R-1a, as described above, would reduce Impact R-1 to a less-than-significant level.

Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Segments F1 and F2 are largely characterized by rural residences, open space and undeveloped land with few recreational resources or opportunities. Recreational resources include a multi-use trail maintained by the Los Angeles Department of Parks and Recreation. It is not expected that road improvements associated with construction and operation would lead to unauthorized recreational uses. Degradation of recreational resources resulting from unauthorized recreation are not anticipated along Segments F1 and F2.

6.3.8 Segment G

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, State, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by segment.

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Most existing residential development along Segment G is located north of the ANF, primarily in the Lake Elizabeth area. Construction-related impacts may be considered significant. The unincorporated community of Green Valley is on private land within the boundaries of the Angeles National Forest.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture (i.e., cropland and apiaries) and recreation (i.e., trails). Additionally, areas adjacent to the proposed ROW are used for commercial, utilities (including access roads), and industrial purposes. Air facilities (private and military) are located in close proximity, as well as in the region.

Within the ANF, Segment G would traverse USFS land use zones, special designations, and Places. Although the desired condition and program emphasis for each Place do not specifically address transmission lines, construction of Segment G would occur within an existing designated utility corridor; consequently, construction of Segment G would not impact the Places that it would traverse. In addition, a Special Designation Overlay is crossed by Segment G (San Francisquito Canyon, eligible Wild and Scenic River). Although Segment G would traverse this Special Designation Overlay, it is located within an existing utility corridor which in itself is a Special Designation Overlay. A USFS fire station, ranger station (Green Valley), and a PCT trailhead (approximately one mile north of the Green Valley area) are also located within one-half mile of Segment G.

Within the ROW itself, construction-related activities associated with structure installation and removal sites, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential...
land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment G would require new ROW. As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

No residences are traversed by Segment G.

Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.

Segment G would traverse, or fall within one-half mile of, lands used for a variety of purposes other than residential, agricultural, or recreational development. Additionally, the segment falls within one-half mile of properties under the ownership or management of federal, State and local agencies.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.

Future energy transport projects could be located within a designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing
residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of the project, the project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would depend directly on the existing land use in the project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.

**Agricultural Resources**

**Impact AG-3: Construction activities would interfere with agricultural operations.**

Segment G would be constructed across approximately one mile of agricultural land (cropland). This cropland has also been classified as Farmland of Local Importance. Farmland of Local Importance has also been classified on soils currently not utilized for cropland (1.4 miles). Construction activities across both agricultural and non-agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Impact AG-4: Operation would interfere with agricultural operations.**

Segment G would cross approximately one mile of agricultural land (cropland). This cropland has also been classified as Farmland of Local Importance. Operation and maintenance of Segment G would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.
The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Recreation,**

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect use of the PCT and a multiuse trail managed by the Los Angeles County Department of Parks and Recreation (Northside Trail). During construction activities in these locations, trails would be temporarily restricted from public use.

Dispersed recreation opportunities would also be affected by Impact R-1 due to temporary access restrictions during the construction period, as well as possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. The degree to which dispersed recreation opportunities would be affected by Impact R-1 depends upon which ROS designation is affected by closures or restrictions related to construction. In general, recreational activities within and adjacent to the ROW will be temporarily suspended during construction activities.

In addition, other recreational resources may be temporarily restricted from use due to access restrictions resulting from the use of NFS roads for construction activities. Identification of the exact roads and necessary improvements that would be required during Project construction would be acknowledged through a Project Road Plan, which would be produced during final engineering for the Project. NFS roads potentially identified include those found in Table 6-5. As a result, these roads would have the potential to be affected by Impact R-1 as a result of construction-related road closures.

Recreational hunting activities permitted in Zone D-11 and uses associated with the San Francisquito Canyon would be affected by Impact R-1 as a result of construction noise, traffic, and road closures. The aspect of construction which would likely be most disruptive to recreational hunting activities is road closures that would potentially restrict hunters from accessing certain areas of the ANF. In addition to road closures that could restrict hunters’ movement through the Forest, recreational hunting could also be affected by aspects of Project construction such as noise from heavy equipment that may affect the presence and movement of wildlife. Project construction activities that occur outside of the designated hunting season(s) would have no effect on recreational hunting in Zone D-11.

Temporary access restrictions to established recreational areas or disruption of activities within such areas as a result of Project construction would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands. Coordination between LADWP and the USFS regarding road improvements and construction timelines (see Section 1.2, Project Description) will facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under
Impact R-1. The following specifically recommended mitigation measures, described below, would help to reduce the significance of Impact R-1.

**Specifically Recommended Mitigation Measures for Impact R-1**

**SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

**SRM R-1b Identify and provide noticing of alternative recreation areas.** To the extent feasible, LADWP shall coordinate with the authorized recreation officer(s) or the agencies of all recreational areas affected by construction and maintenance activities, including but not limited to those listed under SRM R-1a (Coordinate construction schedule and maintenance activities with managing officer[s] for affected recreation areas), the purpose of which is to accomplish the following:

- Identify recreational areas (i.e., trails, parks, day-use areas) that would be closed during Project construction or maintenance activities;
- To the extent feasible, identify alternative recreational areas for each resource that would be made unavailable to the public due to construction or maintenance activities; and
- Post a public notice which identifies alternative recreational areas at USFS Ranger Stations within the ANF and at all recreational areas to be closed due to construction or maintenance activities.

**SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails.** LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

**SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project.** Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily
closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

Implementation of Specifically Recommended Mitigation Measures SRM R-1a, SRM R-1b, SRM R-1d, and SRM R-1e, as described above, would reduce Impact R-1 to a less than significant level.

Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as Segment G is located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT).

Segment G would include one crossing of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Although this type of noise would be disturbing, it would be temporary and would not lead to permanent degradation of the backcountry experience enjoyed by PCT recreationists. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.
Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the proposed Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures (which would be larger than existing transmission towers), the following specifically recommended mitigation measures would be required to minimize such effects.

Specifically Recommended Mitigation Measures for Impact R-3

**SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

**SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails.** LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

**SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project.** Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall
come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

Implementation of the specifically recommended mitigation measures described above would reduce impacts to the recreational experience of the PCT to a less than significant level.

Impact R-4: Contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.

Impact R-4 would occur if existing OHV routes are permanently removed from use as a result of Project activities. Construction or operation and maintenance activities could result in the long-term loss or degradation of OHV routes if such activities would require that OHV routes be repeatedly and/or frequently closed due to maintenance activities, or if OHV routes are permanently closed or altered.

Developed recreation resources crossed and or adjacent to Segment G include 4 OHV routes (6N21, 7N01, 6N04.2, and 7N02). It is expected that during construction, the transport of construction vehicles and equipment to transmission structure sites would require that access roads be upgraded to OML 3 standards, to accommodate the large size of construction vehicles, equipment, and materials. Upgrading of roads designated as OML 1 or 2 to OML 3 standards during the construction period would result in temporary restriction of OHV use, or temporary loss of OHV opportunities, until the affected roads are returned to OML 2 conditions. Operation and maintenance activities would require that ground-access be available to all transmission structure sites; however, operation and maintenance would not require the heavy equipment required during construction and, therefore, roads designated as OML 2 would be sufficient to accommodate operation and maintenance activities. Road upgrades that are applied during the construction period would be strictly temporary; no permanent upgrades to existing OML standards would occur as a result of the proposed Project. Therefore, any loss of recreational opportunity to OHV users would be temporary in nature.

Impact R-4 would also apply to OHV routes that would need to be improved or upgraded to accommodate construction vehicle traffic. As described in Table 5-6 (ANF Roadway Operational Maintenance Level [OML] Guidelines), OHV use is restricted to roads maintained to OML 2 due to safety concerns associated with passenger vehicles and OHVs traveling on the same roadways (OML 2 roads are not accessible by passenger vehicles). If an OML 2 road is required for construction access during Project installation, roadway requirements associated with construction vehicle access would require that upgrades comparable to OML 3 would need to be applied, thereby temporarily disrupting OHV activity during the construction period. However, any such road improvements would be temporary and would not be maintained following the Project construction period; designated OMLs would not be permanently altered.

It is also possible that in reaction to existing OHV routes being restricted during construction, some OHV recreationists may choose to utilize illegal OHV routes or create new, unauthorized OHV routes in the Forest, thereby participating in unmanaged or unauthorized recreational uses. Please see Impact R-5.

Specifically Recommended Mitigation Measures for Impact R-4
To minimize the effects of Impact R-4, Specifically Recommended Mitigation Measure SRM R-1c (Notification of Temporary Closure of OHV Routes) and SRM R-2 (Avoid Permanent Upgrades to Forest System Roads) are recommended.

SRM R-1c Notification of temporary closure of Off-Highway Vehicle routes. To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV
routes which would be closed or otherwise made unavailable for use as a result of Project construction and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

**SRM R-2 Avoid permanent upgrades to National Forest System roads.** LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to *Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2*, above.

Implementation of these specifically recommended mitigation measures would require coordination between LADWP and the USFS in developing and implementing necessary road improvements in a way that is consistent with existing OML designations. Due to the availability of OHV opportunities throughout the ANF and the temporary nature of Impact R-4 to OHV opportunities along the Segments, the provision of compensatory recreation opportunities is not considered a necessary mitigation for this impact. Implementation of the mitigation measures listed above would reduce Impact R-4 to a less than significant level.

**Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.**

A multi-use trail (Northside) maintained by the Los Angeles Department of Parks and Recreation is located in the northern portion of Segment G. It is not expected that road improvements associated with construction and operation activities would lead to unauthorized recreational uses.

Within the ANF, existing roads would be utilized to the fullest extent possible during construction and operation. Roadway improvements would be required in some areas, particularly for hillside structures. The creation of new roads and the improvement of existing roads could potentially facilitate OHV access to areas of the ANF that are not authorized for OHV use, which would contribute to resource damage and degradation. It is expected that construction activities would require that some roads in the Forest be upgraded to OML 3 standards, which would preclude the use of OHVs; such preclusion or restriction from use may encourage some OHV recreationists to utilize other roads in the areas which may not necessarily be designated for OHV use, thereby participating in unmanaged recreation.

Table 6-5 provides roads that may be used and/or improved during construction and/or operation and maintenance activities. Identification of the specific roads and necessary improvements required for Project construction will be determined in LADWP’s Project Road Plan, which is included as part of final engineering. Table 6-5 also indicates the ROS class designated for each roadway in the Project vicinity; these ROS designations are indicative of the types of recreational activities the USFS intends to encourage in the area. If unmanaged or unauthorized OHV use occurs in an area that is incompatible with OHV recreation (for instance, ROS Semi-Primitive Non-Motorized) as a result of road improvements in the area, such unmanaged recreation would be contrary to Forest management objectives of the relevant OHV-incompatible ROS designation.

Additionally, it is possible that some OML 1 roads may need to be upgraded to OML 2 or higher to facilitate Project construction access. Such upgrades would essentially create new roads that are passable
by OHVs and as a result, some OHV recreationists may choose to participate in OHV recreation on these improved roads, regardless of whether such roads are intended by the Forest to be managed for OHV use. The installation of new access or spur roads where none currently exist would have the potential to facilitate unmanaged recreational uses. As discussed, of particular concern with regards to unmanaged recreation in the Forest is the potential for OHV recreationists to use Project roads to operate OHVs in areas where such use is prohibited by Forest management goals and objectives. It is possible that in an effort to control unmanaged recreation and the associated impacts, the USFS may decide to close public access to some areas of the ANF, which would remove recreational opportunities in the ANF. Improvement of existing roads and construction of new access and spur roads associated with the proposed Project could also facilitate unmanaged recreational uses, particularly OHV use, within the ANF. In order to minimize the potential for unmanaged recreation to occur, implementation of SRM R-2 (Avoid Permanent Upgrades to Forest System Roads) and SRM R-3 (Installation of Physical Barriers) would be required.

Specifically Recommended Mitigation Measure for Impact R-5

**SRM R-2 Avoid permanent upgrades to National Forest System roads.** LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to *Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2*, above.

**SRM R-3: Installation of physical barriers.** LADWP would install physical barriers to prevent illegal OHV use to the extent feasible. LADWP will place and maintain barriers, such as boulders or rail fencing, during restoration of temporary work sites. In addition, LADWP would place gates at permanent LADWP roads where public use is not allowed.

With implementation of these mitigation measures, Impact R-5 would be reduced to a less than significant level.

6.3.9 **Segment 2a**

**Land Use**

**Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, State, or local land use plans, goals, or policies.**

Table 6-3 presents consistency with applicable land use plans and policies by Segment. Segment 2a would traverse the BC and BCNM land use zones within the ANF. The BC land use zone permits major utility corridors within designated areas and is also considered suitable for authorized motorized use. However, as described in Table 2.1.3 of the Land Management Plan, the BCNM land use zone is considered not suitable for major utility corridors. Construction-related activities that may occur within the BCNM land use zone would not be consistent with this designation.
Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as recreation. Segment 2a also traverses multiple land use zones and Places within the ANF. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads and the Los Angeles Aqueduct. Air facilities (private and military) are located in close proximity, as well as in the region. Within the ROW itself, construction-related activities associated with structure assembly and installation, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW could result in a potentially significant impact due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-5: Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses.

Segment 2a would traverse, or fall within one-half mile of, lands used for a variety of purposes other than residential, agricultural, or recreational development (i.e. the Los Angeles Aqueduct). Additionally, the Alternative falls within one-half mile of properties under the ownership or management of federal, state and local agencies.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

Agricultural Resources
No impacts identified.

Recreation
Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas

Impact R-1 would affect use of the PCT and an ANF Trail. During construction activities in these locations, trails would be temporarily restricted from public use. Dispersed recreation opportunities would also be affected by Impact R-1 due to temporary access restrictions during the construction period, as well as possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. The degree to which dispersed recreation opportunities would be affected by Impact R-1 depends upon which ROS designation is affected by closures or restrictions related to construction. In general, recreational activities within and adjacent to the proposed ROW will be temporarily suspended during construction activities.

In addition, other recreational resources may be temporarily restricted from use due to access restrictions resulting from the use of NFS roads for construction activities. Identification of the exact roads and...
necessary improvements that would be required during Project construction would be acknowledged through a Project Road Plan, which would be produced during final engineering for the Project. NFS roads potentially identified include those found in Table 6-5. As a result, these roads would have the potential to be affected by Impact R-1 as a result of construction-related road closures.

Recreational hunting activities permitted in Zone D-11 and uses associated with the San Francisquito Canyon would be affected by Impact R-1 as a result of construction noise, traffic, and road closures. The aspect of construction which would likely be most disruptive to recreational hunting activities is road closures that would potentially restrict hunters from accessing certain areas of the ANF. In addition to road closures that could restrict hunters’ movement through the Forest, recreational hunting could also be affected by aspects of Project construction such as noise from heavy equipment that may affect the presence and movement of wildlife. Project construction activities that occur outside of the designated hunting season(s) would have no effect on recreational hunting in Zone D-11.

Temporary access restrictions to established recreational areas or disruption of activities within such areas as a result of Project construction would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands. Coordination between LADWP and the USFS regarding road improvements and construction timelines will facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under Impact R-1. The following specifically recommended mitigation measures, described below, would help to reduce the significance of Impact R-1.

*Specifically Recommended Mitigation Measures for Impact R-1*

**SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

**SRM R-1b Identify and provide noticing of alternative recreation areas.** To the extent feasible, LADWP shall coordinate with the authorized recreation officer(s) or the agencies of all recreational areas affected by construction and maintenance activities, including but not limited to those listed under SRM R-1a (Coordinate construction schedule and maintenance activities with managing officer[s] for affected recreation areas), the purpose of which is to accomplish the following:
• Identify recreational areas (i.e., trails, parks, day-use areas) that would be closed during Project construction or maintenance activities;
• To the extent feasible, identify alternative recreational areas for each resource that would be made unavailable to the public due to construction or maintenance activities; and
• Post a public notice which identifies alternative recreational areas at USFS Ranger Stations within the ANF and at all recreational areas to be closed due to construction or maintenance activities.

**SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails.** LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

• Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
• Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

With implementation of the mitigation measures described above, Impact R-1 would be reduced to a less than significant level.

**Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.**

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The portion of Segment 2a on NFS lands which would be outside an existing utility corridor would see an increase in O/M activity as there are no lines being maintained there now. However, these activities normally do not require restrictions or closures to recreational use on the ANF. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

**Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT).**

Segment 2a would include one crossing of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During
construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Although this type of noise would be disturbing, it would be temporary and would not lead to permanent degradation of the backcountry experience enjoyed by PCT recreationists. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the proposed Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures (which would be larger than existing transmission towers), the following specifically recommended mitigation measures would be required to minimize such effects.

Specifically Recommended Mitigation Measures for Impact R-3

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.

SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Scenic Trail and/or other trails.

With implementation of the mitigation measures described above, Impact R-3 would be reduced to a less than significant level.

Impact R-4: Contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.

Impact R-4 would occur if existing OHV routes are permanently removed from use as a result of Project activities. Construction or operation and maintenance activities could result in the long-term loss or degradation of OHV routes if such activities would require that OHV routes or trails be repeatedly and/or frequently closed due to maintenance activities or if OHV routes are permanently closed or altered.

Developed recreation resources crossed and or adjacent to Segment 2a include 4 OHV routes (7N01, 6N04.2, 7N02, and 6N05). It is expected that during construction, the transport of construction vehicles and equipment to transmission structure sites would require that access roads be upgraded to OML 3 standards, to accommodate the large size of construction vehicles, equipment, and materials. Upgrading of roads designated as OML 1 or 2 to OML 3 standards during the construction period would result in temporary restriction of OHV use, or temporary loss of OHV opportunities, until the affected roads are returned to OML 2 conditions. Operation and maintenance activities would require that ground-access be available to all transmission structure sites; however, operation and maintenance would not require the heavy equipment required during construction and, therefore, roads designated as OML 2 would be sufficient to accommodate operation and maintenance activities. Road upgrades that are applied during the construction period would be strictly temporary; no permanent upgrades to existing OML standards would occur as a result of the proposed Project. Therefore, any loss of recreational opportunity to OHV users would be temporary in nature.

Impact R-4 would also apply to OHV routes that would need to be improved or upgraded to accommodate construction vehicle traffic. As described in Table 5-6 (ANF Roadway Operational Maintenance Level [OML] Guidelines), OHV use is restricted to roads maintained to OML 2 due to safety concerns associated with passenger vehicles and OHVs traveling on the same roadways (OML 2 roads are not accessible by passenger vehicles). If an OML 2 road is required for construction access
during Project installation, roadway requirements associated with construction vehicle access would require that upgrades comparable to OML 3 would need to be applied, thereby temporarily disrupting OHV activity during the construction period. However, any such road improvements would be temporary and would not be maintained following the Project construction period; designated OMLs would not be permanently altered.

It is also possible that in reaction to existing OHV routes being restricted during construction (Impact R-1), some OHV recreationists may choose to utilize illegal OHV routes or create new, unauthorized OHV routes in the Forest, thereby participating in unmanaged or unauthorized recreational uses. Please see Impact R-5.

**Specifically Recommended Mitigation Measure for Impact R-4**

To minimize the effects of Impact R-4, Specifically Recommended Mitigation Measure SRM R-1c (Notification of Temporary Closure of OHV Routes) and SRM R-2 (Avoid Permanent Upgrades to NFS roads) are recommended.

**SRM R-1c Notification of temporary closure of Off-Highway Vehicle routes.** To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV routes which would be closed or otherwise made unavailable for use as a result of Project construction and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

**SRM R-2 Avoid permanent upgrades to National Forest System roads.** LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to *Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2*, above.

**Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.**

Within the ANF, existing roads would be utilized to the fullest extent possible during construction and operation. Roadway improvements would be required in some areas, particularly for hillside structures. The creation of new roads and the improvement of existing roads could potentially facilitate OHV access to areas of the ANF that are not authorized for OHV use, which would contribute to resource damage and degradation. It is expected that construction activities would require that some roads in the Forest be upgraded to OML 3 standards, which would preclude the use of OHVs; such preclusion or restriction from use may encourage some OHV recreationists to utilize other roads in the areas which may not necessarily be designated for OHV use, thereby participating in unmanaged recreation.

Table 6-5 provides roads that may be used and/or improved during construction and/or operation and maintenance activities. Identification of the specific roads and necessary improvements required for Project construction will be determined in LADWP’s Project Road Plan, which is included as part of final engineering. Table 6-5 also indicates the ROS class designated for each roadway in the Project vicinity; these ROS designations are indicative of the types of recreational activities the USFS intends to
encourage in the area. If unmanaged or unauthorized OHV use occurs in an area that is incompatible with OHV recreation (for instance, ROS Semi-Primitive Non-Motorized) as a result of road improvements in the area, such unmanaged recreation would be contrary to Forest management objectives of the relevant OHV-incompatible ROS designation.

Additionally, it is possible that some OML 1 roads may need to be upgraded to OML 2 or higher to facilitate Project construction access. Such upgrades would essentially create new roads that are passable by OHVs and as a result, some OHV recreationists may choose to participate in OHV recreation on these improved roads, regardless of whether such roads are intended by the Forest to be managed for OHV use. The installation of new access or spur roads where none currently exist would have the potential to facilitate unmanaged recreational uses. As discussed, of particular concern with regards to unmanaged recreation in the Forest is the potential for OHV recreationists to use Project roads to operate OHVs in areas where such use is prohibited by Forest management goals and objectives.

Improvement of existing roads and construction of new access and spur roads associated with the proposed Project could facilitate unmanaged recreational uses, particularly OHV use, within the ANF. In order to minimize the potential for unmanaged recreation to occur, implementation of SRM R-2 (Avoid Permanent Upgrades to NFS roads) and SRM R-3 (Installation of Physical Barriers) would be required.

Specifically Recommended Mitigation Measure for Impact R-5

SRM R-2 Avoid permanent upgrades to National Forest System roads. LADWP shall avoid the permanent upgrade of NFS roads to the extent feasible as a result of Project construction or operation and maintenance activities unless otherwise approved by the USFS. Road upgrades that are required to accommodate construction of the Project shall be temporary in nature. Following construction of the Project, existing OML standards designated for temporarily improved roads shall be adhered to, thereby returning improved roads to existing maintenance practices, unless otherwise authorized by the USFS. As determined to be necessary through coordination between LADWP and the USFS and at the discretion of the USFS, LADWP shall develop a plan for returning improved NFS roads to existing conditions. LADWP shall implement the restrictions for road improvements and maintenance set forth in the Special Use or Road Use Authorization to be issued by the USFS for the Project.

Refer to Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2, above.

Implementation of these specifically recommended mitigation measures would require coordination between LADWP and the USFS in developing and implementing necessary road improvements in a way that is consistent with existing OML designations.

SRM R-3: Installation of physical barriers. LADWP would install physical barriers to prevent illegal OHV use to the extent feasible. LADWP will place and maintain barriers, such as boulders or rail fencing, during restoration of temporary work sites. In addition, LADWP would place gates at permanent LADWP roads where public use is not allowed.

6.3.10 Segment H (includes H1 and H2)

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by Segment.
Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Existing scattered residential development is located along Segments H1, and H2 (primarily north of the ANF). Farms and ranches are also located along Elizabeth Lake Road and Johnson Road. These residents, and other residents located in the vicinity of helicopter staging areas, would be subjected to increased noise levels and air quality emissions for the duration of Project construction. Construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture and recreation. Segment H2 also traverses multiple land use zones (see Table 7.1-1 in Appendix A) and Places within the ANF. Additionally, areas adjacent to the proposed ROW are used for utilities, including access roads. Air facilities (private and military) are located in close proximity, as well as in the region.

Within the ROW itself, construction-related activities associated with structure assembly and installation, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones, may in some site-specific circumstances, still be adverse.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.

Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segments H1 and H2 would require new ROW. As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its
acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

No residences are traversed by Segments H1 and H2.

Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.

Segment H2 would traverse, or fall within, one-half mile of lands used for a variety of purposes other than residential, agricultural, or recreational development. Additionally, the Segment falls within one-half mile of properties under the ownership or management of federal, state and local agencies.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

Agricultural Resources

Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland.

Segment H2 would be constructed across 0.4 miles of Prime Farmland and 0.2 miles of Unique Farmland. Construction activities across these lands would include the construction, and assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks, for clearing and grading, tower assembly and installation, and stringing and pulling.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Farmland would be minimized such that impacts would be considered adverse, but not significant.

Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.

As described above for Impact AG-1, Segment H2 would traverse 0.4 miles of Prime Farmland and 0.2 miles of Unique Farmland and would include access and spur roads, transmission structures, and stringing and pulling sites. While the stringing and pulling sites would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to land uses, including Farmland.

While Segment H2 would have a large area of Farmland temporarily converted to non-agricultural uses as described under Impact AG-1, a lesser amount of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland to non-agricultural uses would be considered adverse, but not significant.

Impact AG-3: Construction activities would interfere with agricultural operations.

Segment H2 would be constructed across approximately 0.4 miles of agricultural land (cropland). Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations. Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially
disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Impact AG-4: Operation would interfere with agricultural operations.

Segment H2 would cross approximately 0.4 miles of agricultural land. Operation and maintenance of Segment H2 would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect use of the PCT and a multiuse trail managed by the Los Angeles County Department of Parks and Recreation (Northside Trail). During construction activities in these locations, trails would be temporarily restricted from public use.

Developed and dispersed recreation opportunities exist in the ANF. Developed recreation resources crossed by Segment H2 include 4 OHV routes (6N04.1, 6N08, 6N19, and 6N18). Dispersed recreation opportunities would also be affected by Impact R-1 due to temporary access restrictions during the construction period, as well as possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. The degree to which dispersed recreation opportunities would be affected by Impact R-1 depends upon which ROS designation is affected by closures or restrictions related to construction. In general, recreational activities within and adjacent to the ROW will be temporarily suspended during construction activities.

In addition, other recreational resources may be temporarily restricted from use due to access restrictions resulting from the use of NFS roads for construction activities. Identification of the exact roads and necessary improvements that would be required during Project construction would be acknowledged.
through a Project Road Plan, which would be produced during final engineering for the Project. NFS roads potentially identified include those found in Table 6-5. As a result, these roads would have the potential to be affected by Impact R-1 as a result of construction-related road closures. Although helicopter construction is expected to avoid the need to construct or improve roads in the Forest, ground access would still be required for pulling and stringing locations along the alignment, as well as for helicopter staging areas.

In addition, helicopter construction would likely affect a wider range of recreational areas and recreationists (developed and dispersed) because, in addition to utilizing roadways for access to pulling and stringing sites, Segment H2 would include helicopter traffic between staging areas and transmission structure sites, thereby introducing disturbance to recreational areas and users that would not be affected by road use alone. Such disturbance would result from factors that are specific to the use of helicopters, including visual significance, emissions (compared with ground construction), and noise. Specific flight paths are not known at this time and will be determined during the construction period. It is anticipated that recreational activities within established recreation areas located between the helicopter staging areas and transmission tower sites would be disrupted during helicopter use, particularly as related to solitude, and a natural outdoor setting.

Recreational hunting activities permitted in Zone D-11 would be affected by Impact R-1 as a result of construction noise, traffic, and road closures. The aspect of Project construction which would likely be most disruptive to recreational hunting activities is road closures that would potentially restrict hunters from accessing certain areas of the ANF. In addition to road closures that could restrict hunters’ movement through the Forest, recreational hunting could also be affected by aspects of Project construction such as noise from heavy equipment that may affect the presence and movement of wildlife. Project construction activities that occur outside of the designated hunting season(s) would have no effect on recreational hunting in Zone D-11.

It is also possible that in reaction to existing OHV routes being restricted during construction (Impact R-1), some OHV recreationists may choose to utilize illegal OHV routes or create new, unauthorized OHV routes in the Forest, thereby participating in unmanaged or unauthorized recreational uses. Please see Impact R-5.

Temporary access restrictions to established recreational areas or disruption of activities within such areas as a result of Project construction would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands. Coordination between LADWP and the USFS regarding road improvements and construction timelines will facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under Impact R-1. The following specifically recommended mitigation measures, which are described below, would help to reduce the significance of Impact R-1.

**Specifically Recommended Mitigation Measures for Impact R-1**

**SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.
Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

**SRM R-1b Identify and provide noticing of alternative recreation areas.** To the extent feasible, LADWP shall coordinate with the authorized recreation officer(s) or the agencies of all recreational areas affected by construction and maintenance activities, including but not limited to those listed under SRM R-1a (Coordinate construction schedule and maintenance activities with managing officer[s] for affected recreation areas), the purpose of which is to accomplish the following:

- Identify recreational areas (i.e., trails, parks, day-use areas) that would be closed during Project construction or maintenance activities;
- To the extent feasible, identify alternative recreational areas for each resource that would be made unavailable to the public due to construction or maintenance activities; and
- Post a public notice which identifies alternative recreational areas at USFS Ranger Stations within the ANF and at all recreational areas to be closed due to construction or maintenance activities.

**SRM R-1c Notification of temporary closure of Off-Highway Vehicle routes.** To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV routes which would be closed or otherwise made unavailable for use as a result of Project construction and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

**SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails.** LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

**SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project.** Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall
come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

Implementation of Specifically Recommended Mitigation Measures SRM R-1a through SRM R-1e, as described above, would reduce Impact R-1 to a less than significant level.

Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as Segment H is located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT).

Segment H2 would include one crossing of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Helicopter construction in the vicinity of the PCT would also have a larger contribution to the degradation of the pristine backcountry experience than would ground-based construction activities. Although these types of noise would be disturbing, they would be temporary and would not extend beyond the construction period. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the proposed Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be
temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures, the following specifically recommended mitigation measures would be required to minimize such effects.

**Specifically Recommended Mitigation Measures for Impact R-3**

**SRM RP-1a Coordinate construction schedule with managing officer(s) for affected recreation areas.** LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies/organizations of recreational areas affected by construction, including but not limited to the following: USFS (ANF); CDFG; PCTA; California State Park and Recreation Commission; California Department of Parks and Recreation; Los Angeles County Department of Parks and Recreation; CLWA; MRCA.

Through coordination efforts with the agencies/organizations listed above as well as any additional agencies/organizations that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs unless otherwise approved by the affected agencies/organizations:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays) to the maximum extent feasible, with the understanding that such efforts may not always be feasible;
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities; and
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies/organizations.

**SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails.** LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

**SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project.** Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.
6.3.11 Segment I

Land Use

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Table 6-3 presents consistency with applicable land use plans and policies by Segment.

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Residential land uses traversed by Segment I include scattered rural residences, concentrated rural residences (Agua Dulce) and suburban residences (planned community developments in the vicinity of western Lancaster and Palmdale). Construction-related impacts may be considered significant.

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Portions of the proposed ROW itself are used for non-residential uses such as agriculture (apiaries) and recreation (see Impact R-1). Additionally, areas adjacent to the proposed ROW are used for utilities (including access roads), as well as commercial and industrial facilities. Public, private and military airports and air facilities are also located in close proximity as well as in the region. In addition, Segment I would traverse USFS land use zones, and Places within the ANF. Although the desired condition and program emphasis for each Place do not specifically address transmission lines, construction of Segment I would occur within an existing designated utility corridor; consequently, construction of Segment I would not impact the Places that it would traverse.

Within the ROW itself, construction-related activities associated with structure assembly and installation, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. While construction activities would temporarily disturb grazing land, the impact is considered to be less than significant. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures provided in the Air Quality Technical Report and Traffic Technical Study, construction-related impacts to non-residential land uses would be adverse, but less than significant.
Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.

Segment I would require new ROW. The ROW would partially fall within the boundaries of the Ritter Ranch and City Ranch Specific Plan areas. The Segment would also traverse or lie adjacent to portions of approved and/or pending residential subdivisions as presented in Table 7.1-3 (Planned Land Use) in Appendix A.

As necessary, LADWP would seek to purchase the private property required for the ROW. As soon as a property has been identified through the final design planning and after the completion of the environmental review and approval process, the property owner would be notified of the LADWP’s interest in acquiring the property. After the appraisal and inspection process, a written offer would be presented to the property owner. If an agreement could not be reached after the LADWP had exhausted all its opportunities to reach a settlement with a property owner, the City could choose to exercise its power of eminent domain. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Proposed Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP.

Seven single-family residences are traversed by Segment I. Since a residence would not be allowed within the ROW, a significant impact would result. These residences could not be avoided by re-routing. As such, the impact would remain significant.

Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.

Segment I would traverse, or fall within, one-half mile of lands used for other purposes than residential, agricultural, or recreational development. Property that is owned by the Westside Union School District (WUSD) and planned as a future school site is also traversed. Additionally, the Segment falls within one-half mile of properties under the ownership or management of federal, state, and local agencies.

With implementation of GP-50, impacts to non-residential land uses would be less than significant.

Agricultural Resources

Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland.

Segment I would be constructed across 0.7 miles of Prime Farmland, 0.2 miles of Unique Farmland, and 0.6 miles of Farmland of Statewide Importance, totaling a distance of 1.5 miles of Farmland traversed. Construction activities across these lands would include the construction and assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead groundwire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or
approximate pre-construction conditions. Impacts to Farmland would be minimized such that impacts would be considered adverse, but not significant.

Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.

As described above for Impact AG-1, Segment I would traverse 0.7 mile of Prime Farmland, 0.2 mile of Unique Farmland, and 0.6 mile of Farmland of Statewide Importance and would include access and spur roads, transmission structures, and stringing and pulling sites. While the stringing and pulling sites would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to land uses, including Farmland.

While Segment I would have a large area of Farmland temporarily converted to non-agricultural uses as described under Impact AG-1, a lesser amount of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland to non-agricultural uses would be considered adverse, but not significant.

Impact AG-3: Construction activities would interfere with agricultural operations.

Segment I would be constructed across approximately one mile of agricultural land (0.8 mile of cropland and 0.2 mile of orchard/nursery). Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Impact AG-4: Operation would interfere with agricultural operations.

Segment I would cross approximately one mile of agricultural land. Operation and maintenance of Segment I would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease the agricultural productivity of agricultural operations. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity.
Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Recreation

Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.

Impact R-1 would affect (by crossing) trails maintained by the USFS (3415W19-OHV), MRCA (Parkland), Los Angeles County Department of Parks and Recreation (Northside, Vasquez Loop, Mint Canyon, and Bouquet Canyon), and City of Palmdale (unnamed). Impact R-1 would also cross the PCT. MRCA parkland (Ritter Ranch) and property will also be affected (traversed) by Impact R-1.

Temporary public use restrictions would occur during construction activities in these locations. Such restriction would be temporary and of a short duration, lasting only long enough to complete installation of Project infrastructure.

Specifically Recommended Mitigation Measures for Impact R-1

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

SRM R-1c Notification of temporary closure of Off-Highway Vehicle routes. To the extent feasible, LADWP shall coordinate with the USFS (ANF) to identify OML 2 roads and other designated OHV routes which would be closed or otherwise made unavailable for use as a result of Project construction and maintenance activities. Included in this coordination effort, LADWP shall prepare a public notice which identifies all OML 2 roads and OHV routes to be closed as a result of construction and/or maintenance activities.

Implementation of Specifically Recommended Mitigation Measures SRM R-1a and SRM R-1c, as described above, would reduce Impact R-1 to a less than significant level.
Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as Segment I is located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT).

Segment I would include 3 crossings of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Although these types of noise would be disturbing, they would be temporary and would not extend beyond the construction period. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the proposed Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures, the following specifically recommended mitigation measures would be required to minimize such effects.

Specifically Recommended Mitigation Measures for Impact R-3

SRM R-1a Coordinate construction schedule and maintenance activities with managing officer(s) for affected recreation areas. LADWP shall develop a Project construction schedule and coordinate construction with the authorized officer(s) or the agencies of recreational areas affected by construction and maintenance activities, including but not limited to the following: BLM, USFS (ANF); California
Department of Fish and Game (CDFG); Pacific Crest Trail Association (PCTA); California State Park and Recreation Commission; California Department of Parks and Recreation; Kern County Department of Parks and Recreation; Castaic Lake Water Agency (CLWA); Mountains Recreation & Conservation Authority (MRCA); and Los Angeles County Department of Parks and Recreation.

Through coordination efforts with the agencies listed above, as well as any additional agencies that manage recreational resources which would be affected, and at the discretion of the authorized officer(s) responsible for management of the affected resource(s), LADWP shall ensure the following occurs, to the extent practical, unless otherwise approved by the affected agencies:

- Construction and maintenance activities are scheduled to avoid heavy recreational use periods (including major holidays);
- Staging areas for Project-related equipment, materials, and vehicles are located in areas with the least possible effect on recreational activities and opportunities;
- Timetables for the required period of usage of each staging area are developed and adhered to in coordination with affected resource agencies.

**SRM R-1d Notification of temporary closure and reroute of the Pacific Crest National Trail and/or other trails.** LADWP shall coordinate with the BLM, USFS, PCTA, and other agencies or organization(s) regarding temporary closure of trails that would occur during Project construction and maintenance activities. The following shall be included in this coordination effort to the extent feasible:

- Identification of trail diversions to be applied at each point where trails would be temporarily closed to through-traffic as a result of construction and maintenance activities; and
- Posting of public notices of temporary closures/diversions at locations determined to be appropriate by the agency or organization during construction and maintenance activities.

**SRM R-1e Compensate ANF for reductions in Adventure Pass sales due to recreation area closures associated with the Project.** Prior to Project construction in the ANF, LADWP shall coordinate with the USFS (ANF) to identify recreational resources on NFS lands in the ANF that would be temporarily closed as a direct result of Project construction. A resource is only considered to be closed directly as a result of Project construction if the resource is made entirely inaccessible to the public as a sole result of Project activities.

LADWP shall coordinate with the USFS in reviewing financial records of the Adventure Pass program as well as recreational use data for the ANF. Upon completion of this review, LADWP and USFS shall come to agreement on recreation enhancement projects that will mitigate for the temporary loss of recreation facilities and reduction in revenue, comparable to the direct impacts of the Project. These projects shall be carried out by LADWP, according to plans and specifications of the USFS. Projects do not necessarily have to occur at sites directly impacted by the Project, but shall remain commensurate with the agreed-upon Project impacts.

### 6.4 IMPACT RESULTS: NEW 230 KV CIRCUIT (SEGMENT J)

As opposed to the reconductoring Project, the addition of the future 230 kV circuit within the ROW would include only stringing activities from the proposed Haskell Canyon Switching Station to the existing Castaic Power Plant. Impacts resulting from these future stringing activities would be nearly identical to those described for the reconductoring Project in type, but less severe because the future circuit would involve only restringing, and no new tower modification or replacement.

The construction of the future 230 kV circuit would be consistent with applicable plans and policies.
The activities involved in the addition of a future 230 kV circuit within the ROW would consist of adding a second circuit to the existing 230 kV alignment. Therefore, the following would not occur:

- Division of an established community
- Disruption of established land uses
- Deterioration of recreational facilities
- Conflict with agricultural uses
- Conversion of agricultural lands to non-agricultural uses

There would be a potential for the temporary disruption of recreational activities (primarily Castaic Lake State Recreation Area) during the stringing of lines over or adjacent to recreational areas, but these activities would be short-term and temporary. Impacts to recreation areas due to disruption would be considered adverse, but less than significant.

Operation of the future 230 kV circuit would have no impact, as the additional circuit would not change the use or boundaries of the existing ROW.

6.5 IMPACT RESULTS: RECONDUCTORING

Reconductoring of the existing BR-RIN would involve Segments A, B, G, and K and require many of the same activities of the new transmission line (surveying of ROW, rehabilitation of existing access and spur roads, clearing of ROW, conductor installation, ground rod installation, and cleanup). The existing transmission line would be removed and used to pull the new conductor. Some of the transmission line structures would need to be modified or replaced, and/or foundations reinforced, to carry the additional weight of the new heavier conductor. All work would remain within the existing ROW.

Construction activities do not conflict with environmental plans, policies, or regulations adopted by agencies with jurisdiction over local land uses. After transmission structure modifications and reconductoring are completed, LADWP will employ the same operations and maintenance activities of the transmission lines as it did prior to this Project. Therefore, there will be no impact.

The reconductoring and construction access routes would cross or run adjacent to a range of land use types, including residential, agricultural, industrial, institutional, public service, open space, and recreational lands. During operation, the reconducted transmission line would not disrupt these established land uses because it is not a substantial change from the existing use of the ROW. However, construction activities would have the potential to disrupt land uses along the transmission corridor for short periods. For example, temporary staging areas located outside the ROW could temporarily affect surrounding communities and the respective land uses by disrupting access to properties adjacent to the ROW or precluding some outdoor activities very close to the ROW. These instances are expected to be short-term and infrequent because most if not all of the construction activity would take place within the existing corridor. Due to their temporary and intermittent nature, and implementation of General Practice measures GP-21, GP-34, GP-37, and GP-50, impacts resulting from disruptions to established land uses would be adverse but less than significant. In addition, other factors, such as air quality, noise, and traffic, could disrupt adjoining land uses. Air quality and traffic are analyzed in separate technical reports.

The conversion of Farmland to non-agricultural uses is considered a significant impact due to Farmland’s high capacity for agricultural production. The proposed Project crosses lands designated by the DOC as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (Segments B, G, and K). Because the area of impacted Farmland represents a small percentage of the total amount of similar Farmland in the area, and is only temporarily affected, impacts would be less than significant.

The reconductoring would not adversely affect agricultural uses, with the possible exception of short-term construction-related impacts or disruptions (e.g., noise, traffic, dust). In addition, the reconductoring
follows the existing ROW crossing through or running adjacent to the agricultural lands described above. As such, it would not cause changes in land use around the ROW that could lead to the conversion of these agricultural lands to non-agricultural uses. Therefore, the reconductoring’s impacts to agricultural lands are expected to be less than significant.

The reconductoring does not cross or run adjacent to any properties under a Williamson Act contract. Therefore, no impacts are expected to lands under a Williamson Act contract.

Operation and maintenance activities for the transmission lines will be conducted within the existing corridor and in the same manner as they were prior to this project. Therefore, operation and maintenance activities will not result in conversion of any designated Farmland.

The reconductoring would result in or accelerate the substantial physical deterioration of recreational facilities if it increased their use beyond existing capacity. Generally, this increased use is a result of an increase in population local to the recreational resources. The reconductoring is not expected to induce either short-term or long-term population growth, and is unlikely to draw additional residents or recreationists to the area. Therefore, the reconductoring would not increase local need for recreational resources, and the reconductoring would not lead to the physical deterioration of recreational facilities due to increased use.

The reconductoring could also deteriorate recreational facilities if it reduced the value of their use. This could occur, for example, through reduced visual value, increased noise and traffic, or increased dust and emissions. Visual, traffic, and air quality impacts are addressed in their respective technical reports. The reconductoring could also reduce the value of recreational resources through a physical intrusion into the resource. However, the reconductoring would not include any permanent components outside the existing ROW. This limits potential physical intrusions to recreational resources resulting from temporary construction activities. As noted in the Project Description, construction activities would usually occur within the existing ROW. Due to their temporary and intermittent nature, impacts resulting from deterioration of recreational facilities would be adverse but less than significant.

As discussed above, the reconductoring corridor passes through or near recreational facilities, including the CLWA Conservatory Garden and Learning Center, Whitney Canyon Park, and MRCA Property.

Restriction or preclusion of use of these facilities could result in adverse impacts on users of these recreational facilities. Recreational resources could be affected temporarily by work on the transmission line structures or by restringing activities. Operation of the proposed Project could permanently affect recreation areas if the placement of the transmission structures restricts or precludes access to all or a portion of a recreational facility.

Temporary Impacts Resulting from Construction Activities. Transmission line structure removal and replacement construction would largely occur within the boundary of the existing ROW and outside the boundaries of recreational areas. Due to the expected location of construction outside the majority of recreation areas, work on the transmission line structures is not anticipated to substantially restrict access to or preclude the use of recreational facilities. Project construction activities could, however, restrict the use of access roads or otherwise temporarily block access to recreational resources near the ROW. These impacts would be considered potentially significant, but would be reduced to less than significant levels with the implementation of Specifically Recommended Mitigation Measures SRM R-1a and SRM R-1d.

Permanent Impacts Resulting From Operational Activities. Operation of the reconducted transmission line would not restrict or preclude access to recreational resources. Operation of the reconducted transmission line would have a less-than-significant impact on access to or use of recreational facilities because the reconductoring corridor would follow the existing alignment. As such, the reconductoring would not alter regional recreational resources as they currently exist.
There are no active mining operations within the existing transmission line corridor. Likewise, there are no known areas designated or delineated for mineral resource recovery (Mineral Resource Zone 2 or otherwise) along the line. In addition, there are no known mineral resources that have noted value to the region and to the residents of the state. As a result, the project will have no impact on mineral resources.

6.6 IMPACT RESULTS: HASKELL CANYON SWITCHING STATION

6.6.1 Land Use and Agricultural Resources

According to the Farmland Mapping and Monitoring Program, the proposed new switching station site is not located on designated Farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance), nor is it being used for agricultural purposes. Therefore, the development of the proposed new switching station would not convert designated Farmland to a non-agricultural use. Los Angeles County does not participate in the Williamson Act Contract program.

The proposed new switching station would be located on OS (Open Space)–NF (National Forest) land designated in the Santa Clarita Valley Area Plan (SCVAP), a component of the Los Angeles General Plan. Open spaces are considered to be lands under public and private ownership that are essentially free of structures and roads, and maintained in an open or natural state. These areas are primarily managed for recreation purposes, the protection of natural resources, and/or for purposes of safeguarding public health and safety.

In the SCVAP, open space is separated into three major categories (public, private, and Angeles and Los Padres National Forests). Under the Angeles and Los Padres National Forest category, private inholdings within the forest boundaries are designated for non-urban uses at a maximum density of one unit/5 acres except within established residential communities where higher densities presently exist. Within these established residential communities, future development may occur at non-urban, and in some instances, low urban densities consistent with the existing character of the area. Commercial uses to support user groups within the forest may be permitted. In all cases, development proposals will be applicable to hillside management and flood protection performance standards and criteria. All proposed private and public development projects within the National Forest boundaries will be reviewed by both the Regional Planning Commission and the USFS for compliance with applicable land use and resource management plans.

The proposed new switching station is also located within the A-2-2 (Heavy Agriculture-Two Acre Minimum Required Lot Area) Zoning District. Utility substations are permitted subject to a Conditional Use Permit (CUP).

The proposed new switching station does not include recreational facilities, nor does it require the construction of new facilities or the expansion of existing recreational facilities.

Land uses in the area would be temporarily disrupted by construction activities such as noise, dust, and traffic. Construction of the substation would temporarily disturb these areas as a result of heavy construction equipment on temporary and permanent access roads, and the movement of materials and equipment to the site. Existing access roads would be used for construction and maintenance activities.

Staging areas would also be located on vacant land owned by LADWP adjacent to the proposed new switching station. No existing residences or businesses will be displaced, and no established community or subdivision will be divided. The nearest residential subdivision is located approximately 0.5 mile south of the proposed switching station site.
Less-than-significant impacts associated with construction, operation and maintenance activities are expected.

6.7 IMPACT RESULTS: EXPANSION OF BARREN RIDGE SWITCHING STATION

6.7.1 Land Use and Agricultural Resources

The Barren Ridge Switching Station expansion area would be located adjacent to the existing switching station on vacant land owned by LADWP. Staging areas would also be located on vacant land near the switching station. Existing access roads would be used for construction and maintenance activities. Less-than-significant impacts are expected. There would be no impacts to agricultural resources from expansion and/or modification of the Barren Ridge Switching Station.

The Barren Ridge Switching Station expansion area is located on land designated Resource Management in the Kern County General Plan, Land Use, Open Space and Conservation Element. The Resource Management designation consists primarily of open space lands containing important resource values, such as wildlife habitat, scenic values, or watershed recharge areas. These areas may be characterized by physical constraints, may constitute an important watershed recharge area or wildlife habitat, or may have value as a buffer between resource areas and urban areas. Other lands with this resource attribute are undeveloped, non-urban areas that do not warrant additional planning within the foreseeable future because of current population (or anticipated increase), marginal physical development, or no subdivision activity.

Minimum parcel size is 20 acres gross, except lands subject to a Williamson Act Contract/Farmland Security Zone Contract, in which case the minimum parcel size shall be 80 acres gross.

The expansion area is also located within the Platted Lands (PL) and Residential Suburban (RS) Zoning Districts. The purpose of the PL District is to recognize legally existing lots within recorded subdivisions which had been rendered nonconforming with regard to minimum lot size requirements of the various Resource designations (8.1, 8., 8.3, 8.4, and 8.5) of the County General Plan. Uses in the PL District are limited to residential uses and other activities compatible with the area to which the PL District is applied. According to the Zoning Ordinance, utility substations are permitted subject to a CUP. The purpose of the RS District is to expand the number and type of permitted domestic agricultural uses within rural residential areas. The RS Combining District may also be combined with the PL District, provided that each lot contains a minimum of one-half (1/2) net acres. Uses permitted with a CUP in an RS District are those conditional uses permitted by the base district with which the RS District is combined.

6.7.2 Recreation

There would be no effect on recreational facilities, and temporary restrictions that may affect dispersed recreation in the area are not considered a significant impact. Because of the degree of disturbance in the area, the appearance and disruption related to construction activities would not substantially affect recreational activities.

Operation of the switching station would not affect recreational resources. Demand for and access to recreational resources would not be affected. The changes in appearance would not substantially alter recreational uses in the vicinity of the switching station. Maintenance traffic and activity may increase slightly at the Barren Ridge Switching Station. The potential impacts to recreation associated with construction and operation of the switching station are considered to be less than significant.
7.0 ALTERNATIVES

NEPA and CEQA both require consideration of a reasonable range of alternatives to the Proposed Action that would feasibly attain most of the basic objectives of the Project, but avoid or substantially lessen any of the significant or adverse effects of the Project.

7.1 DEVELOPMENT OF ALTERNATIVES

A range of alternatives were identified through a siting analysis, the scoping process, and supplemental studies and consultations. A full discussion of alternatives development can be found in the Alternatives Development Report (POWER 2010).

The regional siting analysis identified nine routing opportunities (Segments A through I) for the new 230 kV transmission line between Barren Ridge Switching Station and the proposed Haskell Canyon Switching Station. Some of the routing opportunities or segments were adjusted or modified based on public input and preliminary environmental review, and preliminary electrical system studies. Each of the nine segments are discussed in detail, including impact analysis, in Section 6.0 of this report. Several of these segments were not used in the formation of alternatives as discussed below.

Segment E was recommended for elimination from analysis in the EIS/EIR. The Segment would require an additional 6.5 miles of transmission line in comparison to the Proposed Action and would not significantly reduce or avoid impacts to air quality, biological, cultural, visual, and water resources. Segment H was also recommended for elimination, due to increased impacts to air quality and noise, along with safety concerns, related to helicopter construction. Cumulative effects for the Project would also increase because of the further disturbance of revegetated and rehabilitated areas and potential for impacts from three transmission line projects in the same vicinity.

Eight routing opportunities (Segments A, B, C, D, F, G, 2a and I) were combined to create end-to-end routing alternatives for the proposed double-circuit 230 kV transmission line between Barren Ridge Switching Station and the proposed Haskell Canyon Switching Station. In addition to routing segments, each Alternative discussed within this section would include other Project components as discussed earlier within this report. These include the addition of a new circuit on existing towers between Castaic Power Plant and Haskell Canyon, reconductoring of the existing BR-RIN transmission line, construction of a new Haskell Canyon Switching Station, and expansion of the existing Barren Ridge Switching Station. Impact assessment and impact results for each of the other Project components listed above, and which are common to each of the Alternatives, are described in Sections 6.4 through 6.7. Descriptions and impact assessment of the routing alternatives follow in the sections below.

7.2 ALTERNATIVES DESCRIPTION

The following alternatives were identified as a reasonable range of alternatives to the Project that would feasibly attain most of the basic objectives of the Project, but avoid or substantially lessen any of the significant or adverse effects of the Project.

7.2.1 Action Alternatives

In addition to a new double-circuit 230 kV transmission line between the Barren Ridge and Haskell Canyon switching stations, whose route would vary among the action Alternatives, the four action Alternatives would include the following common components: the expansion of the existing Barren Ridge Switching Station, construction of a new Haskell Canyon Switching Station, reconductoring of the existing 230 kV transmission line from the Barren Ridge Switching Station to Rinaldi Substation, and the addition of a new 230 kV circuit on existing towers between the Castaic Power Plant and Haskell Canyon Switching Station. Refer to Figure 7-1.
FIGURE 7-1. ACTION ALTERNATIVES

Proposed Action and Alternatives

Alternative Routes for 230 kV Transmission Line
- Alternative 1
- Alternative 2 - Proposed Action
- Alternative 2a
- Alternative 3

A - K Original Segment Labels

Project Components Applicable for each Alternative
- New 230 kV Circuit
- Recondotoring of Existing 230 kV Transmission Line (Barren Ridge - Rinaldi)
- Expansion of Existing Switching Station
- New Switching Station

BARREN RIDGE RENEWABLE TRANSMISSION PROJECT
Alternative 1 (Segments A, C, and D)

The Alternative 1 230 kV double-circuit transmission line comprises the preliminary routing Segments A, C, and D, and is the longest Alternative, at 83 miles long. It would run from the Barren Ridge Switching Station to the unincorporated community of Mojave, while paralleling LADWP’s existing 230 kV BR-RIN and 500 kV PDCI transmission lines. It would continue south-southwest to parallel the Los Angeles Aqueduct to Lancaster Road, where it would travel west to the I-5 utility corridor. It would then run southeast along LADWP’s existing Castaic – Rinaldi corridor to the proposed Haskell Canyon Switching Station.

Helicopter Mitigation

Within the ANF where the terrain is steep and access is limited, the USFS would require that the new double-circuit 230 kV structures be constructed with the use of helicopters (such as the Hughes 500 or Bell 212, or Sikorsky Skycrane). Refer to Figure 7-2, the Identified Helicopter Mitigation Locations Map, which illustrates the identified locations for this mitigation. The use of helicopters for the construction of transmission tower structures would eliminate the need for new access roads to structure locations, and would therefore minimize land disturbance associated with crane pads, structure laydown areas, and the trucks and tractors used for delivery of structures to sites. However, the following site and ground disturbing construction activities would be required to construct the new transmission line within the identified helicopter construction areas: portable landing pads, helicopter fly yards/staging areas, tower structure vegetation clearing, guard structures at major crossings, wire stringing sites, pullouts, and temporary access roads.
FIGURE 7-2. IDENTIFIED HELICOPTER MITIGATION LOCATIONS
Alternative 2 (Segments A, B, and G) – LADWP’s Proposed Action

Alternative 2, LADWP’s Proposed Action, comprises Segments A, B, and G and is 61 miles long. It begins at the Barren Ridge Switching Station and runs south, paralleling LADWP’s existing 230 kV BR-RIN and 500 kV PDCI transmission lines. It travels south from the unincorporated community of Mojave, California through the Antelope Valley and approximately one mile east of the Antelope Valley California Poppy Reserve before continuing onto National Forest System lands and ending at the proposed Haskell Canyon Switching Station. The entire route would remain within designated utility corridors and would parallel existing transmission lines. Refer to Section 1.2, Project Description, for a full description of this Alternative.

Alternative 2a (Segments A, B, G and 2a)

The 230 kV double-circuit transmission line in Alternative 2a comprises the preliminary routing Segments A, B, and G, but includes a re-route (Segment 2a) avoiding the unincorporated community of Green Valley. It is 63 miles long and would be very similar to the Proposed Action (Alternative 2), with 56 miles of the same alignment. Alternative 2a would begin at the Barren Ridge Switching Station and run south, paralleling LADWP’s existing 230 kV BR-RIN and 500 kV PDCI transmission lines. It would travel south from the unincorporated community of Mojave through the Antelope Valley and approximately one mile east of the Antelope Valley California Poppy Reserve before continuing onto NFS lands and ending at the proposed Haskell Canyon Switching Station. The route would remain within designated utility corridors and would parallel existing transmission lines, with the exception of the nearly seven miles that would be routed around the unincorporated community of Green Valley. Segment 2a would create a new utility corridor through the ANF. The re-route would rejoin Segment G south of the unincorporated community of Green Valley before continuing south and ending at the proposed Haskell Canyon Switching Station.

Three-Circuit Tower Mitigation

In areas where there are ROW expansion constraints and where LADWP has existing 230 kV transmission lines, LADWP is proposing to construct three-circuit towers to carry the existing BR-RIN circuit and two new BR-HC circuits. This would avoid various impacts including the acquisition of residential property in the unincorporated communities of Willow Springs (milepost 27.1 to 27.6) and Elizabeth Lake and Green Valley (milepost 44.6 to 46 and milepost 50.8 to 51.7). This mitigation would be utilized in the same areas that were identified for Three-Circuit Tower Mitigation for the Proposed Project, with the exception of approximately five miles through the unincorporated community of Green Valley, which would not utilize this mitigation. These areas are illustrated in 1-7, the Three-Circuit Tower Mitigation Map.

Helicopter Mitigation

Within the ANF where the terrain is steep and access is limited, the USFS would require that the new double-circuit 230 kV structures be constructed by the use of helicopter. Refer to Figure 7-2, Identified Helicopter Mitigation Locations, which illustrates the identified locations for this mitigation. The use of helicopters for the construction of transmission tower structures would eliminate the need for new access roads to structure locations, and would therefore minimize land disturbance associated with crane pads, structure laydown areas, and the trucks and tractors used for delivery of structures to sites. However, the following site and ground disturbing construction activities would be required to construct the new transmission line within the identified helicopter construction areas: portable landing pads, helicopter fly yards/staging areas, tower structure vegetation clearing, guard structures at major crossings, wire stringing sites, pullouts, and temporary access roads. The estimated sizes of these auxiliary sites (temporary and permanent) and additional construction information is detailed above in the description of the Proposed Action (Alternative 2) and in Appendix C.
Alternative 3 (Segments A, B, F, and I)
The proposed 230 kV double-circuit transmission line in Alternative 3 comprises preliminary routing Segments A, B, F, and I. It is 76 miles long and would begin at the Barren Ridge Switching Station and run south, paralleling LADWP’s existing 230 kV BR-RIN and 500 kV PDCI lines. It would travel south from the unincorporated community of Mojave through the Antelope Valley and approximately one mile east of the Antelope Valley California Poppy Reserve before continuing southeast past SCE’s Antelope Substation. The route would then travel toward the city of Palmdale, parallel to SCE’s existing high-voltage transmission lines. It would make a sharp turn to the south to parallel LADWP’s existing Victorville – Rinaldi 500 kV and Adelanto – Rinaldi 230 kV transmission lines. This Alternative would then parallel these transmission lines west, crossing two miles of the ANF. The Alternative would then parallel LADWP’s 500 kV PDCI line north to the proposed Haskell Canyon Switching Station.

Three-Circuit Tower Mitigation
In areas where there are ROW expansion constraints and where LADWP has existing 230 kV transmission lines, LADWP is proposing to construct three-circuit towers to carry the existing BR-RIN circuit and two new BR-HC circuits. This would avoid various impacts including the acquisition of residential property in the unincorporated communities of Willow Springs (milepost 27.1 to 27.6). Please refer to the small inset map on Figure 1-7.

Avenue L Re-route
To avoid acquisition of private property, a portion of Alternative 3 from mile marker 45.2 to 46.7 was moved to parallel a smaller distribution line south along 90th Street West and then east along West Avenue “L.” Refer to Figure 7-3, Avenue L Re-route on Alternative 3.
FIGURE 7-3. AVENUE L RE-RUTE ON ALTERNATIVE 3
7.2.2 No Action Alternative

Under the No Action Alternative, the construction of a new 230 kV transmission line, the addition of a new circuit on existing structures from Haskell Canyon to the Castaic Power Plant, the reconductoring of the existing BR-RIN transmission line, the construction of a new Haskell Canyon Switching Station, and the expansion of the existing Barren Ridge Switching Station would not occur. LADWP currently maintains an estimated 147 miles of existing access roads in the Project area, 97 of which are located within the ANF. Current, on-going operation and maintenance activities for existing facilities in the Project area would continue. The EIS/EIR must address the resulting environmental effects from taking no action and compare them to the effects of permitting the Proposed Action or an Alternative to the Proposed Action.

7.3 IMPACT RESULTS—ROUTING ALTERNATIVES

7.3.1 Alternative 1 (Segments A, C, and D)

Alternative 1 Impacts—Land Use

The discussion below includes information on the direct and indirect effects of the Alternative 1 transmission line.

Conflict with any applicable federal, State, or local land use plans, goals, or policies (Criterion LU1)

Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.

Under the Alternative 1 transmission line, a BCNM land use zone would be traversed. As described in the ANF Land Management Plan, the BCNM land use zone is considered not suitable for major utility corridors. The Alternative 1 transmission line would therefore be inconsistent with this ANF Land Management Plan policy.

CEQA Significance

Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would traverse a BCNM land use zone, which is considered not suitable for major utility corridors, and would therefore be inconsistent with this ANF Land Management Plan policy. Impacts related to potential conflicts with applicable land use plans, goals, or policies would be at a level of less than significant (refer to CEQA significance discussion under the Proposed Action).

Preclude a permitted land use, or create a disturbance that would diminish the function of a particular land use (Criterion LU2)

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Some construction-related activities for the Alternative 1 transmission line would require the temporary use of lands for purposes other than their existing uses (i.e., staging areas, access roads, and pulling, tensioning, and splicing sites). The use of these areas could temporarily restrict access to, or the use of, lands that surround them as well. Construction could additionally cause temporary disturbances due to site-specific access limitations and parking restrictions, increased traffic along construction routes and detour routes, increased dust generation and noise, and changes in the overall visual character of an area due to the presence of construction-related equipment, personnel, and associated activities.

Staging areas would be selected on the basis of accessibility to construction locations and proximity to transmission line and substation access roads. In addition, helicopter staging areas would be required to support helicopter construction of structures within the ANF. The number of wire setup sites used for
pulling/tensioner/splicing of conductor wire would vary by route length and specific construction-related needs.

Construction of the Alternative 1 transmission line would require the improvement of some existing access and spur roads in order to accommodate construction-related heavy equipment; the construction of some new access and spur roads would additionally be needed. The estimated temporary and permanent land disturbance acreages associated with these features. The estimated total construction-related temporary disturbance of land for Alternative 1 ranges between 576 to 599 acres.

Project ground and helicopter construction activities would temporarily disrupt existing residential land uses and residents. With the exception of the unincorporated community of Castaic, residential uses along or near the Alternative 1 transmission line are generally rural. Rural residential uses include the unincorporated communities of Neenach, Holiday Valley Estates, and Paradise Ranch Mobile Home Park. These residents would be subjected to increased noise levels and air quality emissions for the duration of construction. Construction would additionally cause temporary disturbances due to site-specific access limitations, parking restrictions, and increased traffic along construction and detour routes. Construction-related impacts could also cause direct effects on residential land uses within approximately 1,000 feet of either side of a given ROW, or within approximately 1,000 feet of staging areas, substation sites, and new and improved access and spur roads due to the presence of construction crews, heavy equipment operation, and associated crew, equipment, and material access from these sites. Residences within 1,000 feet of construction could be temporarily disturbed by these activities.

Indirect effects could also occur at distances greater than 1,000 feet from construction sites due to the placement of temporary access roads, which could cause limited access to some properties, and the need for construction-related detours through neighborhoods that are not directly affected by construction activities. Although these disturbances would be temporary in nature, restrictions and preclusions of, and inconveniences to, the daily routines and activities of local residences due to construction may be substantial if not managed and residents kept informed.

Due to the proximity of some residential uses to construction-related activities, in conjunction with the intensity of the workforce and equipment needed and the duration of construction itself, the impacts of the Alternative 1 transmission line to residential uses which are outlined above would be considered adverse. With implementation of GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts to residential land uses would be adverse, but less than significant.

CEQA Significance

Construction-related disruptions to residential land uses associated with Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be temporary in nature. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts to residential land uses would be adverse but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Construction of the Alternative 1 transmission line (especially in the ANF where terrain is steep and access limited) would require the use of non-residential lands for purposes other than their existing uses to accommodate transmission structure placement. Helicopters would also be utilized for the construction of transmission structures to eliminate the need for new access roads to structure locations, and to minimize land disturbance associated with crane pads, structure laydown areas, and the trucks and tractors used for delivery of structures to sites.
Portions of the impact corridor are used for non-residential uses such as agriculture including livestock grazing and apiaries, resource management, and recreation. Areas adjacent to and within the impact corridor are used for utilities, (including access roads), as well as institutional (church), and industrial facilities. Public, private, and military airports and air fields are also located in proximity to the Alternative 1 transmission line. In addition, the Alternative 1 transmission line would traverse USFS land use zones, and Places within the ANF. Although the desired condition and program emphasis for each Place do not specifically address transmission lines, construction of the Alternative 1 transmission line would occur within an existing designated utility corridor; consequently, construction of the Alternative 1 transmission line would not impact the Places that it would traverse.

Within the impact corridor, construction activities associated with transmission structure installation and removal sites, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. Additionally, site-specific operations would be impaired or prohibited at some locations due to the need to clear areas for construction equipment and materials. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

The Quail Lake Sky Park Airport (private) and Castaic Dam Heliport (public) are located within one-half mile of the Alternative 1 impact corridor. Other air facilities would be located in proximity to the Alternative. Transmission structure installation activities could temporarily affect aircraft movement within the vicinity of tower pad locations due to their height. Final transmission structure heights would range between 110 and 195 feet. Additionally, the construction of transmission structures within the ANF could temporarily affect aircraft movement, as well as those land uses (both non-residential and residential) that are in close proximity to the proposed helicopter staging areas and subject transmission structure sites; these effects may also be adverse at a site-specific scale.

In addition, the Alternative 1 transmission line would involve numerous helicopter flyovers, landings and takeoffs from the helicopter staging areas. Construction-related activities associated with the Alternative 1 transmission line could conflict with the Los Angeles County Sheriff Department’s and USFS’s helicopter flight activities, including both routine operations and emergency response efforts. Additionally, Federal Aviation Administration (FAA) Advisory Circular AC 91-36 C discourages low-level flyovers within the boundaries of ANF lands. Temporary conflicts with the helicopter activities of the Los Angeles County Sheriff Department and the FAA’s AC 91-36 C would be adverse.

FAR Title 14, Part 77 establishes the standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (3.79 miles) of an airport. Prior to construction, LADWP would consult with the FAA and ensure the filing of all forms and associated specifications per the requirements of Federal Aviation Regulations (FAR) Title 14, Part 77. In addition, prior to the start of construction, LADWP would consult with the Los Angeles County Sheriff Department and the USFS (including GP-21) to ensure that construction, operation, and maintenance of the Alternative 1 transmission line would not conflict with local aircraft operations or associated safety provisions.
With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures, Alternative 1 transmission line construction-related impacts to residential land uses would be adverse, but less than significant.

**CEQA Significance**

With implementation of GP-21, GP-34, GP-37, and GP-50, as well as pre-construction and construction phase measures, construction-related impacts to non-residential land uses associated with Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be adverse but at a level of less than significant.

**Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.**

The Alternative 1 transmission line would require new ROW. The ROW would partially fall within the boundaries of the Mojave, Willow Springs, Centennial, and Northlake Specific Plan areas. The Alternative 1 transmission line would also traverse or lie adjacent to portions of undeveloped residential subdivisions. The Alternative 1 transmission line would result in the permanent disturbance of between 120 to 199 acres of land. The Alternative 1 transmission line would not remove any residences along the route.

There is potential for Alternative 1 to result in take of private property and ancillary structure(s) through use of eminent domain or exercise of existing property rights. The use of eminent domain would only occur in the event that negotiations between LADWP and individual property owners do not result in agreement by both parties. This process would be conducted according to California State law. The full extent of this impact is unknown at this time, as negotiations with property owners would not occur until after decisions on the Project route are made by the lead agencies, through the CEQA/NEPA process. In some instances, the LADWP could instead seek an easement on the property, rather than ownership, in fee.

**CEQA Significance**

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the transmission line with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP. Alternative 1’s preclusion of, and incompatibility with, current and future residential land uses within the proposed new 230 kV double-circuit transmission line ROW, and adjacent to existing ROWs (BR-RIN 230 kV transmission line and Castaic-Olive 230 kV transmission line), would be considered adverse but less than significant.

**Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.**

The Alternative 1 transmission line would traverse or fall within one-half mile of lands used for a variety of purposes other than residential, such as agriculture (including livestock grazing), resource management, recreation, electrical power generation, and utilities (primarily the Los Angeles Aqueduct). In addition, non-residential lands within one-half one mile of the Alternative 1 transmission line fall under the ownership or management of State and federal agencies.

The Alternative 1 transmission line would also traverse land planned for wind and solar development on private lands in Kern County (Alta East Wind Project, Alta-Oak Creek Mojave Wind Energy Project,
Avalon Wind Project, Catalina Renewable Energy Project, Lower West Wind Energy Project, Pacific Wind Energy Project, PdV Wind Energy Project, RE Distributed Solar Project, Ridge Rider Solar Park Project, Rising Tree Wind Farm, and Windstar Wind Project). These projects have been approved or are currently under Kern County review.

In Los Angeles County, the Alternative 1 transmission line would traverse property that is owned by the Westside Union School District (existing vacant Neenach School).

The Alternative 1 transmission line would be 83 miles in length, 42 miles of which would be located either within a federally designated utility corridor (BLM and USFS) or adjacent to existing utility ROWs. While the new or replacement transmission structures along these ROWs would increase the bulk of the existing transmission line corridors, they would not significantly change the character or use of the areas surrounding these ROWs. However, the northern portion of the Alternative 1 transmission line route is used and planned for industrial and power generation facilities and would not be anticipated to result in significant conflicts with, preclusions of, or changes to existing and planned non-residential uses. The majority of the remainder of the Alternative 1 transmission line route consists of existing and planned residential, agricultural and open space (resource management) uses. Potential impacts associated with existing and planned residential uses are addressed above, under Impact LU-4. Placement of the Alternative 1 transmission line in open space and resource management areas may limit activities at some transmission structure-specific locations; however, these limitations would not be anticipated to substantially affect existing and planned non-residential land uses.

Operations and maintenance of the Alternative 1 transmission line would involve periodic inspections, approximately once per year, via helicopter and/or truck. As such, conflicts between the use of helicopters for operations and maintenance and the Los Angeles County Sheriff Department’s and USFS’s routine and emergency helicopter operations within the ANF could occur. As discussed above, non-residential lands within one-half one mile of the Alternative 1 transmission line fall under the jurisdiction of several State and federal agencies, including the California Department of Fish and Game, California Department of Parks and Recreation, and BLM. In addition, several airports, heliports and landing strips regulated by the FAA and Airport Land Use Commissions (or their respective alternative processes) would be located within 3.79 miles of some elements of the Alternative 1 transmission line. The Alternative 1 transmission line would also traverse local jurisdictions. However, no significant preclusions of, or restrictions to, the management and uses of these lands would be anticipated, due to implementation of GP-50.

**CEQA Significance**

No significant preclusions of, or restrictions to, the management and uses of these lands associated with Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be anticipated, due to implementation of GP-50.

**Conflict with military operations** (Criterion LU3)

**Impact LU-6: Operation would conflict with military operations.**

The Alternative 1 transmission line would be located within a portion of the 20,000-square-mile R-2508 military range complex. The R-2508 Complex includes all the airspace and associated land presently used and managed by three principal military activities in the Upper Mojave Desert region: Air Force Flight Test Center, Edwards Air Force Base; National Training Center, Fort Irwin; and Naval Air Warfare Center Weapons Division, China Lake. LADWP would provide a complete copy of the Project’s application, including the location of the entire transmission line alignment and the heights of structures to be located, to the Department of Defense.
CEQA Significance

Review by the Department of Defense would ensure that Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would not conflict with military operations.

Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.

It should be noted that future energy transport projects could be located within this designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW for the Alternative 1 transmission line would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of the project, the project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would depend directly on the existing land use in the project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.

Alternative 1 Impacts—Agriculture

The discussion below includes information on the direct and indirect effects of the Alternative 1 transmission line.

Convert Farmland to non-agricultural use (Criterion AG1)

Alternative 1 would not be located on Farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance). Consequently, Alternative 1 would have no direct or indirect impacts on Farmland.

Interfere with agricultural operations (Criterion AG2)

Impact AG-3: Construction activities would interfere with agricultural operations.

The Alternative 1 transmission line would be constructed across 2.8 miles of agricultural land. Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the
230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity. VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Active Agricultural Operations would be minimized such that impacts would be considered adverse, but not significant.

With the implementation of specifically recommended mitigation measure VIS-17, impacts to agricultural operations for the Alternative 1 transmission line would be avoided and minimized such that impacts would be adverse, but would be reduced to a level that is not significant.

CEQA Significance

Under Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Conflict with a Williamson Act Contract (Criterion AG5)

Impact AG-4 Conflict with agricultural operations.
The Alternative 1 transmission line would cross 2.8 miles of agricultural land. Operation and maintenance of the Alternative 1 transmission line would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease agricultural operations productivity. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity. As such, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Active Agricultural Operations from the Alternative 1 transmission line would be minimized such that impacts would be considered adverse, but not significant.

CEQA Significance

Under Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Impact AG-5 Conflict with Williamson Act contract lands.
The Alternative 1 transmission line would cross 1.5 miles of land under Williamson Act contract in Kern County. The land is currently not under active cultivation. Construction activities across this land would

ANA 032-152 (PER-02) LADWP (MARCH 2011) MS 115244 165
include the construction, assembly and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead ground wire. Construction in this area would require the use of graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling.

While stringing and pulling disturbed areas would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent permanent disturbances to lands under Williamson Act contract.

Although the Alternative 1 transmission line would result in both temporary and permanent conversion of lands under Williamson Act contracts, because the Project would be an electrical infrastructure project, these components would be considered to be allowable uses under Williamson Act contracts. Consequently, there would be no conflict with Williamson Act contracts.

**Alternative 1 Impacts—Recreation**

Potential impacts of Alternative 1 that could affect Developed Recreation resources and opportunities are presented below in Table 7-1. A detailed description of each impact related to recreation is presented in the text following the table.

**Table 7-1. Recreation Impacts Applicable to Developed Recreation Resources – Alternative 1**

<table>
<thead>
<tr>
<th>Milepost(s)</th>
<th>Recreational Resource</th>
<th>Potentially Applicable Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.7-25.8</td>
<td>RCSD Parks System Master Plan Trail (L13)</td>
<td>R-1</td>
</tr>
<tr>
<td>25.9-26.1</td>
<td>RCSD Parks System Master Plan Trail (L13)</td>
<td>R-1</td>
</tr>
<tr>
<td>26.7-27.6</td>
<td>RCSD Parks System Master Plan Trail (Aqueduct Major M4)</td>
<td>R-1</td>
</tr>
<tr>
<td>28.1-29.0</td>
<td>RCSD Parks System Master Plan Trail (Aqueduct Major M4)</td>
<td>R-1</td>
</tr>
<tr>
<td>34.4-37.4</td>
<td>Pacific Crest Trail</td>
<td>R-1, R-2, R-4</td>
</tr>
<tr>
<td>44.3-46.5</td>
<td>Pacific Crest Trail</td>
<td>R-1, R-2, R-4</td>
</tr>
<tr>
<td>58.3-58.6</td>
<td>Forest Road 8N01 (OHV)</td>
<td>R-1, R-2, R-5</td>
</tr>
<tr>
<td>58.9-59.0</td>
<td>Forest Road 8N01 (OHV)</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>60.0-60.1</td>
<td>Forest Road 8N01 (OHV)</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>60.5-60.7</td>
<td>Forest Road 8N01 (OHV)</td>
<td>R-1, R-2, R-5</td>
</tr>
<tr>
<td>61.2-61.3</td>
<td>Forest Road 8N01 (OHV)</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>62.8-62.9</td>
<td>Forest Road – Old Ridge Road 8N04 (OHV) – currently under a temporary closure</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>62.9-63.6</td>
<td>Salt Creek IRA-1C</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>64.2-64.3</td>
<td>Forest Road – Old Ridge Road 8N04 (OHV) – currently under a temporary closure</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>64.7-64.8</td>
<td>Forest Road – Old Ridge Road 8N04 (OHV) – currently under a temporary closure</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>65.0-66.0</td>
<td>Salt Creek IRA-1B</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>66.1-66.2</td>
<td>Forest Road – Old Ridge Road 8N04 (OHV) – currently under a temporary closure</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>66.3-66.4</td>
<td>Forest Road – Old Ridge Road 8N04 (OHV) – currently under a temporary closure</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>68.3-68.5</td>
<td>Forest Road 6N43</td>
<td>R-1</td>
</tr>
<tr>
<td>73.5-73.7</td>
<td>Forest Road – Old Ridge Road 8N04 (OHV) – currently under a temporary closure</td>
<td>R-1, R-2, R-5</td>
</tr>
<tr>
<td>74.2-74.7</td>
<td>LACRHT (Castaic Lake)</td>
<td>R-1</td>
</tr>
<tr>
<td>75.2-75.3</td>
<td>LACRHT (Castaic Lake)</td>
<td>R-1</td>
</tr>
<tr>
<td>75.3-76.3</td>
<td>Castaic Lake State Recreation Area; LACRHT (Castaic Lake)</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>76.3-76.7</td>
<td>Castaic Lake State Recreation Area</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>77.7-77.8</td>
<td>Castaic Lake State Recreation Area</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>77.8-77.9</td>
<td>Castaic Lake State Recreation Area; LACRHT (Castaic Lake)</td>
<td>R-1, R-2</td>
</tr>
</tbody>
</table>
The discussion below includes information on the direct and indirect effects of the Alternative 1 transmission line.

**Directly or indirectly disrupt or preclude activities in established federal, State, or local recreation areas (Criterion R1)**

**Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.**

Impact R-1 would occur for all Developed Recreation resources that would be traversed by the proposed transmission line. Recreational resources that would be crossed would not necessarily be physically impacted by the presence of the overhead transmission line because, in most cases, the transmission line would span over the resource or area without any ground impact. Although it is not anticipated that recreation resources that would be crossed by the Alternative 1 transmission line would be physically impacted, such resources and areas would be restricted from use during construction activities in order to protect the safety of public recreationists and to accommodate the transport and use of equipment and activities required to construct the new transmission line. During construction activities, ground work would be required at each structure pad location, as well as along select roadways between the locations, as materials to build the structures would be transported by truck to the structure sites. As a result, resources and areas crossed by the transmission line would be temporarily closed during construction activities, for only as long as required to complete activities in a given location. Recreational areas located in the near vicinity of the proposed route may also experience temporary use disruptions due to factors such as construction noise and the potential need to stage construction vehicles, equipment, or infrastructure.

In addition to developed recreation resources (PCT, RCSD Parks System Master Plan trails, LACRHT trails, Castaic Lake State Recreation Area, BLM routes, and USFS roads and trails), dispersed recreation opportunities would be affected due to temporary access restrictions during the construction period, as well as possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. For example, recreational hunting permitted in Zone D-11 would be affected by Impact R-1 as a result of construction noise, traffic, and road closures, with road closures that would potentially restrict hunters from accessing certain areas of the ANF introducing the most noticeable effect. The Alternative 1 transmission line would cross the Salt Creek Inventoried Roadless Area, and construction sights and sounds would disrupt solitude and natural values of the area.

The degree to which dispersed recreation opportunities would be affected in the ANF would depend upon which ROS designation is affected by closures or restrictions related to the Alternative 1 transmission line construction. The type of recreational resource or opportunity available to the public largely depends upon the applicable ROS objective. In general, recreational activities within and adjacent to the Alternative 1 transmission line ROW would be temporarily suspended during construction activities.

It is expected that recreational activities located between the helicopter staging areas and transmission structure sites would be disrupted during helicopter use, particularly as related to the enjoyment of solitude, and a natural outdoor environment. Such disturbance would result from factors that are inherent to the use of helicopters, including visual prominence, increased emissions (compared with ground construction), and operational noise. Specific flight paths are not known at this time and would be

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**Table: Milepost(s) and Recreational Resource Potentially Applicable Impacts**

<table>
<thead>
<tr>
<th>Milepost(s)</th>
<th>Recreational Resource</th>
<th>Potentially Applicable Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>77.9-78.1</td>
<td>Castaic Lake State Recreation Area</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>80.5-80.8*</td>
<td>LACRHT (Castaic Lake)</td>
<td>R-1</td>
</tr>
<tr>
<td>81.2-81.3</td>
<td>LACRHT (Castaic Lake)</td>
<td>R-1</td>
</tr>
<tr>
<td>82.4-82.5</td>
<td>Forest Road 5N29</td>
<td>R-1</td>
</tr>
</tbody>
</table>

*adjacent to and within impact zone

LACRHT - Los Angeles County Riding and Hiking Trail
determined based upon a variety of factors, including final engineering and weather conditions during the construction period. During helicopter operations, public access to defined areas would be restricted.

**CEQA Significance**

Impact R-1 for the Alternative 1 transmission line would require implementation of the following specifically recommended mitigation measures: R-1a, R-1b, R-1c, R-1d, and R-1e (Table 4-2.5-1). With implementation of these specifically recommended mitigation measures, Impact R-1 of Alternative 1 would be less than significant.

**Environmental Effects of Specifically Recommended Mitigation Measure R-1d**

While R-1d is recommended to reduce impacts to recreationists using the PCT and/or other trails, this measure may adversely affect other areas. A trail diversion could potentially disturb sensitive biological resources or damage cultural resources that may be located along the diverted route.

**CEQA Significance**

Under Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, temporary access restrictions to established recreational resources or disruption of activities within such resources as a result of construction activities would occur. These activities would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands, which is described in the discussion for Impact R-5. Coordination between LADWP and the USFS regarding road improvements and construction timelines would facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under Impact R-1.

The following specifically recommended mitigation measures would help to reduce the significance of Impact R-1: R-1a, R-1b, R-1c, R-1d, and R-1e.

Specifically recommended mitigation measure R-1a would help to minimize Impact R-1 for both Developed and Dispersed Recreation (including recreational hunting in Zone D-11) by requiring coordination among relevant agencies. Similarly, R-1b through R-1e would help to minimize Impact R-1 through public awareness and outreach. R-1c is also similar to GP-30 (Temporary Closures). Implementation of R-1a through R-1e, as described above, would reduce Impact R-1 to a less than significant level.

**Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.**

During operation and maintenance activities of the Alternative 1 transmission line, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife
species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as the Alternative 1 transmission line would be located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

The Alternative 1 transmission line would also require the granting of a ROW across the Castaic Lake State Recreation Area which has received LWCF grant funding. This conversion of land would constitute a conflict with the LWCF. Implementation of providing replacement property, undergrounding or avoidance would prevent the transmission line route’s non-compliance with the LWCF, resulting in a low impact.

With implementation of GP-50 listed above, Impact R-2 from the Alternative 1 transmission line would be less than significant.

**CEQA Significance**

With implementation of GP-50 listed above, Impact R-2 on Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be less than significant.

*Substantially contribute to the long-term loss or degradation of the factors that contribute to the value of federal, State, local, or private recreational facilities (Criterion R2)*

**Impact R-3: The Project would cause or contribute to degradation of the Pacific Crest National Scenic Trail.**

The Alternative 1 transmission line would include two crossings of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery, as well as helicopters. Although this type of noise would be disturbing, it would be temporary and would not lead to permanent degradation of the backcountry experience enjoyed by PCT recreationists. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Alternative 1 transmission line activities. Additionally, the Alternative 1 transmission line would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Alternative 1 transmission line activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures. It should be noted here that visual resources and noise both contribute to the backcountry experience of the PCT. As such visual and noise aspects of the Alternative 1 transmission line are only discussed here in terms of their contributions to recreation, not in terms of specific visual...
and noise impacts that would be introduced by the Alternative 1 transmission line. In terms of the recreational experiences of the PCT, specifically recommended mitigation measure R-1d would minimize such effects.

**CEQA Significance**

Under Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, implementation of the specifically recommended mitigation measures R-1a and R-1d would reduce impacts to the recreational experience of the PCT to a less than significant level.

**Impact R-4: The Project would contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.**

Impact R-4 (The Project would contribute to degradation of Off-Highway Vehicle [OHV] routes or would result in a loss of recreational opportunity for OHV users) would occur on only one ANF designated OHV route under Alternative 1. This impact could occur primarily during construction through the upgrade of forest roads to accommodate construction equipment. Implementation of R-2 would avoid any permanent impacts to OHV routes on the ANF.

As previously discussed, the use of helicopters for construction of Alternative 1 would avoid the need to upgrade or construct portions of certain roadways.

**Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2**

While R-2 would avoid the permanent loss of OHV routes on OML 2 designated roads, this measure may adversely affect other issue areas. The activities that would be associated with returning improved roads to existing maintenance practices would require earthmoving equipment, which would increase construction noise within the ANF. Earthmoving and other equipment that may be required for this measure would also contribute to additional air quality emissions. In addition, greater land disturbance as a result of road activities would contribute to increased soil erosion, which would potentially affect water quality.

**CEQA Significance**

Under Alternative 1, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, implementation of R-2 would reduce Impact R-4 to a less than significant level.

**Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.**

Impact R-5 would be minimal for the Alternative 1 transmission line with implementation of R-3. Impact R-5 would occur if Project activities result indirectly in an increase in unauthorized or unmanaged recreational activities. For instance, improvement of existing roads and installation of new roads could provide access to areas that were not previously accessible by roads. As a result, these new and improved roads could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes, such as OHV use in restricted USFS (ANF) areas. In addition, some recreational resources may become temporarily inaccessible during construction and/or maintenance of the proposed transmission line, which could potentially result in unmanaged recreational uses, as recreationists seek alternative or comparable recreational resources to those which are made unavailable. As previously discussed, the use of helicopters for construction of the Alternative 1 transmission line would avoid the need to install or improve spur roads to transmission structures that would be constructed by helicopter. Although ground access to pulling and stringing sites and staging areas would still be required, the Alternative 1 transmission line would require fewer spur road
installations, as more structures would be constructed via helicopter. Improvement of existing roads and construction of new access and spur roads associated with the Alternative 1 transmission line could facilitate unmanaged recreational uses, particularly OHV use, within the ANF.

**CEQA Significance**

In order to minimize the potential for unmanaged recreation to occur, implementation of R-2 and R-3 would be required for Alternative 1, including the new 230 kV double circuit transmission line and Project components common to all action Alternatives. With implementation of these specifically recommended mitigation measures, Impact R-5 would be reduced to a less than significant level.

### 7.3.2 Alternative 2 (Segments A, B, and G)-LADWP’s Proposed Action

#### Alternative 2 Impacts—Land Use

The discussion below includes information on the direct and indirect effects of the Alternative 2 transmission line.

**Conflict with any applicable federal, State, or local land use plans, goals, or policies (Criterion LU1)**

**Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.**

Alternative 2 would traverse multiple jurisdictions which have adopted plans related to land use planning, development, and management. An inconsistency between a proposed project or Alternative and an applicable plan is a legal determination, not a physical impact on the environment. There is no agreed objective standard by which to judge the degree of inconsistency or the significance of a project’s inconsistency with the various policies and objectives enumerated in adopted plans. Inconsistency with a plan alone does not mandate a finding of a significant impact under CEQA or NEPA. Inconsistencies may, however, may be a factor in determining the significance of an underlying physical impact.

**CEQA Significance**

As part of the Project’s approval, and prior to construction, the USFS would issue a Special Use Authorization, which would involve amending the 2005 ANF Land Management Plan, as necessary, to ensure consistency with the USFS’s management direction for affected areas within the ANF. Alternative 2 would require Project-specific plan amendments for Standards S10 (Scenic Integrity Objectives) and S47 (Riparian Conservation Areas). Through the plan amendment process, the Proposed Action would be consistent with USFS land use policies. In addition, GP-50 would require LADWP to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies would occur. Therefore, impacts related to potential conflicts with applicable land use plans, goals, or policies would be mitigated to a level of less than significant.

**USFS and Policies**

In addition to the discussion above, as part of the Project approval, and prior to construction, the USFS would issue a Special Use authorization, which would involve amending the 2005 ANF Land Management Plan, as necessary, to ensure consistency with the USFS management direction for affected areas within the ANF. It is currently anticipated that two Project-specific amendments would be required for the Alternative 2 to allow for its inconsistencies with the Land Management Plan’s Standards S10 (Scenic Integrity Objectives), and S47 (5-Step Screening for Riparian Conservation Areas). A third Project-specific amendment may be needed for Standard ANF S-1, (Foreground Views from Pacific Crest Trail). The USFS would also include in its Special Use authorizations any construction-related activities which would be located outside of the ROW widths to ensure compliance with USFS plans and policies. Implementation of construction mitigation measures required by the USFS, combined with the use of
resource-specific recommended mitigation measures, would ensure the Proposed Action’s consistency with the USFS land use policies.

Following construction, temporary pulling, tensioning and splicing sites, staging areas, and access or spur roads would be closed and restored per the requirements of the USFS and the applicable mitigation measures, and new or existing access and spur roads would be maintained in accordance with the USFS’s approval. Therefore, the Alternative 2 transmission line would be consistent with the USFS land use policies, and no impacts would occur.

Local Plans and Policies

Implementation of the Alternative 2 transmission line would require new ROW and substation sites, these features would not conflict with the land use plans and policies.

CEQA Significance

As part of the Project’s approval, and prior to construction, the USFS would issue a Special Use Authorization, which would involve amending the 2005 ANF Land Management Plan, as necessary, to ensure consistency with the USFS’s management direction for affected areas within the ANF. The new 230 kV double-circuit transmission line associated with Alternative 2 would require Project-specific plan amendments for Standards S10 (Scenic Integrity Objectives) and S47 (Riparian Conservation Areas). Through the plan amendment process, the new 230 kV double-circuit transmission line would be consistent with USFS land use policies. In addition, GP-50 would require LADWP to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies would occur. Impacts of Alternative 2, including common Project components and the Alternative 2 transmission line, related to potential conflicts with applicable land use plans, goals, or policies would be less than significant.

Preclude a permitted land use, or create a disturbance that would diminish the function of a particular land use (Criterion LU2)

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Some construction-related activities for the Alternative 2 transmission line would require the temporary use of lands for purposes other than their existing uses (i.e., staging areas, access roads, and pulling, tensioning, and splicing sites). The use of these areas could temporarily restrict access to, or the use of, lands that surround them as well. Construction would additionally cause temporary disturbances due to site-specific access limitations and parking restrictions, increased traffic along construction routes and detour routes, increased dust generation and noise, and changes in the overall visual character of an area due to the presence of construction-related equipment, personnel, and associated activities.

Staging areas would be selected on the basis of accessibility to construction locations and proximity to transmission line and substation access roads. The number of sites used for pulling/tensioning/splicing of conductor wire would vary by route length and specific construction-related needs.

Construction of the Alternative 2 transmission line would require the improvement of some existing access and spur roads in order to accommodate construction-related heavy equipment; the construction of some new access and spur roads would additionally be needed. The estimated total construction-related temporary disturbance of land for the Alternative 2 transmission line ranges between 398 to 399 acres.

Alternative 2 transmission line ground construction activities would temporarily disrupt existing land uses and residents. Residential land uses along or near the Alternative 2 transmission line are generally rural. Rural residential uses include the unincorporated communities of Willow Springs, Elizabeth Lake, Green
Valley, and Antelope Acres. These residents would be subjected to increased noise levels and air quality emissions for the duration of construction. Construction would additionally cause temporary disturbances due to site-specific access limitations, parking restrictions, and increased traffic along construction and detour routes.

Construction-related impacts typically cause direct effects on land uses within approximately 1,000 feet of either side of a given ROW, or within approximately 1,000 feet of staging areas, substation sites, and new and improved access and spur roads due to the presence of construction crews, heavy equipment operation, and associated crew, equipment, and material access from these sites. residences within 1,000 feet of construction could experience temporary disturbances as a result of these activities.

Indirect effects could also occur at distances greater than 1,000 feet from construction sites due to the placement of temporary access roads, which could cause limited access to some properties, and the need for construction-related detours through neighborhoods that are not directly affected by construction activities. Although these disturbances would be temporary in nature, restrictions and preclusions of, and inconveniences to, the daily routines and activities of local residences due to construction may be considered significant if not carefully managed and residents kept informed.

Construction would involve the placement of temporary structures to support the temporary transmission line while the original structures holding the line are replaced with the new three-circuit structures. The temporary transmission line construction would temporarily disrupt or diminish the use of existing residential and non-residential land uses by blocking or partially blocking access. Residents would be subjected to increased noise levels and air quality emissions for the duration of Project construction (six to nine months).

With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts of the Alternative 2 transmission line to residential land uses would be adverse, but less than significant.

**CEQA Significance**

Construction-related disruptions to residential land uses associated with Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be temporary in nature. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts to residential land uses would be adverse but less than significant.

**Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.**

As addressed under Impact LU-2, above, construction of portions of the Alternative 2 transmission line would require the use of lands for purposes other than their existing uses to accommodate transmission structure placement areas, staging areas, access roads, and pulling, tensioning and splicing sites. Construction activities would also temporarily restrict or preclude access to, and potentially the use of, lands adjacent to construction-related work areas. Lands used for construction could additionally be damaged or otherwise impaired to a degree that their existing (i.e., pre-construction) uses are impaired.

Portions of the impact corridor are used for non-residential uses such as agriculture, including livestock grazing and apiaries, resource management, and recreational purposes. Areas adjacent to the impact corridor are used for commercial, public use, utilities (including access roads), and industrial facilities. Public and private airports are also located in proximity to—but farther than one-half mile from—the Proposed Action. In addition, the Alternative 2 transmission line would traverse USFS land use zones, special designations, and Places within the ANF. Although the desired condition and program emphasis for each Place do not specifically address transmission lines, construction of the Alternative 2 transmission line would occur within an existing designated utility corridor; consequently, construction of
the Alternative 2 transmission line would not impact the Places that it would traverse. In addition, a Special Designation Overlay is crossed by the Alternative 2 transmission line (San Francisquito Canyon, eligible Wild and Scenic River). Although the Alternative 2 transmission line would traverse this Special Designation Overlay, it is located within an existing utility corridor which in itself is a Special Designation Overlay. A USFS fire station and ranger station (unincorporated community of Green Valley) are also located within one-half mile of the Alternative 2 transmission line.

Within the impact corridor, construction activities associated with transmission structure installation and removal sites, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. Additionally, site-specific operations would be impaired or prohibited at some locations due to the need to clear areas for construction equipment and materials. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the Alternative 2 transmission line ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

According to the Kern County Airport Land Use Compatibility Plan (2008), the Proposed Action would fall within the following compatibility zones of the Mojave Airport: B2 (Extended Approach/Departure Zone) and C (Common Traffic Pattern Zone). Although there are no aircraft support facilities (airports, landing strips, heliports, and helipads) located within one-half mile of the Project impact corridor, tower installation activities could temporarily affect aircraft movement within the vicinity of tower pad locations due to their height. Final transmission structure heights would range between 110 feet and 195 feet. Additionally, the construction of transmission structures within the ANF could temporarily affect aircraft movement, as well as those land uses (both non-residential and residential) that are in close proximity to tower sites; these effects may also be adverse at a site-specific scale.

FAR Title 14, Part 77 establishes the standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (3.79 miles) of an airport. Prior to construction, LADWP would consult with the FAA and ensure the filing of all forms and associated specifications per the requirements of FAR Title 14, Part 77. In addition, prior to the start of construction, LADWP would consult with the Los Angeles County Sheriff Department and the USFS (including GP-21) to ensure that construction, operation, and maintenance of the Alternative 2 transmission line would not conflict with local aircraft operations or associated safety provisions.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts of the Alternative 2 transmission line to non-residential land uses would be adverse, but less than significant.

**CEQA Significance**

With implementation of GP-21, GP-34, GP-37, and GP-50, as well as pre-construction and construction phase measures, construction-related impacts to non-residential land uses associated with Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be adverse, but at a level of less than significant.
Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.
The Alternative 2 transmission line would require new ROW. The ROW would partially fall within the boundaries of the Mojave, Soledad Mountain-Elephant Butte, and Willow Springs Specific Plan areas. In addition, the Alternative 2 transmission line would traverse or lie adjacent to portions of undeveloped residential subdivisions. Based upon the estimates provided in Chapter 2, Table 2-14, the Alternative 2 transmission line would result in the permanent disturbance of between 57 to 70 acres of land. The transmission line would not remove any residences along the Alternative 2 route.

There is potential for Alternative 2 to result in take of private property and ancillary structure(s) through use of eminent domain or exercise of existing property rights. The use of eminent domain would only occur in the event that negotiations between LADWP and individual property owners do not result in agreement by both parties. This process would be conducted according to California State law. The full extent of this impact is unknown at this time, as negotiations with property owners would not occur until after decisions on the Project route are made by the lead agencies, through the CEQA/NEPA process. In some instances, the LADWP could instead seek an easement on the property, rather than ownership, in fee.

CEQA Significance

LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate Alternative 2 with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP. Alternative 2’s preclusion of, and incompatibility with, current and future residential land uses within the proposed new 230 kV double-circuit transmission line ROW, and adjacent to existing ROWs (BR-RIN)230 kV transmission line and Castaic-Olive 230 kV transmission line), would be considered adverse but less than significant.

Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.
As addressed in Chapter 3, the Alternative 2 transmission line would traverse or fall within one-half mile of lands used for a variety of purposes other than residential, such as agriculture including livestock grazing, resource management, and recreation.

The Alternative 2 transmission line would traverse BLM public land (managed by the Ridgecrest Field Office). Applications for solar energy projects on this land have been submitted to the BLM and are pending review. As described in Chapter 3, this land has been designated as a utility corridor (Corridor A) and Section 368 energy corridor (multi-modal corridor 23-106). Alternative 2 would also traverse land planned for wind and solar development on private lands in Kern County (Alta East Wind Project, Alta-Oak Creek Mojave Wind Energy Project, Antelope Valley Solar Project, Avalon Wind Project, RE Distributed Solar Project, Ridge Rider Solar Park Project, Rising Tree Wind Farm, Rosamond Solar Array Project, Willow Springs Solar Array Project) as well as for water banking (Antelope Valley Water Bank). These projects have been approved or are currently under Kern County review. The majority of the Alternative 2 transmission line within Kern County is designated for resource management, residential, and agricultural uses. The Antelope Valley California Poppy Reserve, managed by the State Department of Parks and Recreation, is situated 0.5 mile west of the Alternative 2 transmission line. Within the ANF, the Alternative 2 transmission line would be located within a USFS designated utility corridor and a 368 energy corridor (electric-only corridor 264-265).
As stated above, the Alternative 2 transmission line would be placed either in a designated utility corridor or adjacent to existing utility ROWs. While the new or replacement transmission structures along these ROWs would increase the bulk of the existing transmission line corridors, they would not substantially change the character or use of the areas surrounding these ROWs. The area surrounding the northern portion of the Alternative 2 transmission line is primarily used and/or planned for industrial and power generation facilities and would not be anticipated to result in significant conflicts with, preclusions of, or changes to existing and planned non-residential uses. The majority of the remainder of the Alternative 2 transmission line consists of existing and planned residential, agricultural and open space (resource management) uses. Potential impacts associated with existing and planned residential uses are addressed above, under Impact LU-4. Placement of the Alternative 2 transmission line in areas used for open space and resource management may limit some activities at some transmission structure-specific locations; however, these limitations would not be anticipated to substantially affect existing and planned non-residential land uses.

In addition, several airports, heliports and landing strips regulated by the FAA and Airport Land Use Commissions (or their respective alternative processes) would be located within 3.79 miles of some elements of the Alternative 2 transmission line. Non-residential lands within one-half mile and vicinity of the Project fall under the jurisdiction of federal and State and local agencies including the BLM, USFS, Department of Defense (DoD), and California Department of Parks and Recreation. The Alternative 2 transmission line would also traverse or be located near local jurisdictions. No significant preclusions of, or restrictions to, the management and uses of these lands would be anticipated, due to implementation of GP-50.

CEQA Significance

No significant preclusions of, or restrictions to, the management and uses of these lands associated with Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be anticipated, due to implementation of GP-50.

Conflict with military operations (Criterion LU3)

Impact LU-6: Operation would conflict with military operations.
The Alternative 2 transmission line would be located within a portion of the 20,000-square-mile R-2508 military range complex. The R-2508 Complex includes all the airspace and associated land presently used and managed by three principal military activities in the Upper Mojave Desert region: Air Force Flight Test Center, Edwards Air Force Base; National Training Center, Fort Irwin; and Naval Air Warfare Center Weapons Division, China Lake. LADWP would provide a complete copy of the Proposed Action or Alternative’s application, including the location of the entire transmission line alignment and the heights of structures to be located, to the Department of Defense.

CEQA Significance

Review by the Department of Defense would ensure that Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would not conflict with military operations.

Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.
It should be noted that future energy transport projects could be located within this designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction.
activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of the project, the project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would depend directly on the existing land use in the project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.

**Alternative 2 Impacts—Agriculture**

The discussion below includes information on the direct and indirect effects of the Alternative 2 transmission line.

*Convert Farmland to non-agricultural use (Criterion AG1)*

**Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland.**

The Alternative 2 transmission line would be constructed across 4.5 miles of Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance). Construction activities across these lands would include the construction, assembly, and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead ground wire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling. Temporary disturbance of Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) from these activities would amount to 14 acres.

Implementation of VIS-17 would locate transmission structures minimizing impacts to Active Agricultural Operations, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Farmland from the Alternative 2 transmission line would be minimized such that impacts would be considered adverse, but not significant.

**CEQA Significance**

As the conversion of Farmland would be greater than the 10-acre threshold described in the significance criteria, these impacts would be considered significant. Under Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to Farmland would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Impact AG-2 Operation would permanently convert Farmland to non-agricultural use.**

The Alternative 2 transmission line would traverse 4.5 miles of Farmland (Prime Farmland and Farmland of Statewide Importance) and would include access and spur roads, transmission structures, and stringing and pulling sites. While the stringing and pulling sites would be restored following the completion of
construction activities, structure footings and foundations and access and spur roads would represent a permanent disturbance to this Farmland of 1.7 acres.

While the Alternative 2 transmission line would have Farmland temporarily converted to a non-agricultural use as described under Impact AG-1, only 1.7 acres of Farmland would be permanently converted to a non-agricultural use. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland for the Alternative 2 transmission line to a non-agricultural use would be considered adverse, but not significant.

**CEQA Significance**

Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would temporarily convert Farmland greater than the 10-acre threshold described in the significance criteria and under Impact AG-1. However, only 1.7 acres of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland under Alternative 2 to non-agricultural uses would be considered adverse, but not significant.

**Interfere with agricultural operations (Criterion AG2)**

**Impact AG-3: Construction activities would interfere with agricultural operations.**
The Alternative 2 transmission line would be constructed across 4.7 miles of agricultural land. Construction activities across agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations.

Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity. As such, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Active Agricultural Operations from the Alternative 2 transmission line would be minimized such that impacts would be considered adverse, but not significant.

**CEQA Significance**

Under Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Impact AG-4: Operation would interfere with agricultural operations.**
The Alternative 2 transmission line would be constructed across 4.7 miles of agricultural land. Operation and maintenance of the Alternative 2 transmission line would result in the presence of a 230 kV
transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures could interfere with agricultural operations along the transmission line route.

The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease agricultural operations productivity. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity. As such, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Active Agricultural Operations from the Alternative 2 transmission line would be minimized such that impacts would be considered adverse, but not significant.

**CEQA Significance**

Under Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Conflict with a Williamson Act Contract (Criterion AG3)**

No lands under Williamson Act contract exist along Alternative 2. Consequently, the Proposed Action would not conflict with any Williamson Act contracts and no impact would occur.

**Alternative 2 Impacts—Recreation**

The following section describes the Proposed Action’s (Alternative 2) impacts to recreation as determined by the significance criteria listed above. Specifically recommended mitigation measures are introduced where necessary in order to reduce significant impacts to less than significant levels. Direct and indirect effects associated with Alternative 2 are discussed below and summarized in Table 4.2.5-7 (Summary Comparison of Impacts – Recreation).

Potential impacts of Alternative 2 that could affect Developed Recreation resources and opportunities are presented below in Table 7-2. A detailed description of each impact related to recreation is presented in the text following the table.

**TABLE 7-2. RECREATION IMPACTS APPLICABLE TO DEVELOPED RECREATION RESOURCES – ALTERNATIVE 2**

<table>
<thead>
<tr>
<th>Milepost(s)</th>
<th>Recreational Resource</th>
<th>Potentially Applicable Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.3-25.5*</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>25.6-25.7</td>
<td>RCSD Parks System Master Plan Trails (L10, M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>25.7-27.8</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>28.8-28.9</td>
<td>RCSD Parks System Master Plan Trail (L11)</td>
<td>R-1</td>
</tr>
<tr>
<td>29.2-29.3</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>29.6-30.5*</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>30.5-30.6</td>
<td>RCSD Parks System Master Plan Trails (M2, M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>30.6-32.1*</td>
<td>RCSD Parks System Master Plan Trails (M2, M3)</td>
<td>R-1</td>
</tr>
</tbody>
</table>
### Milepost(s) | Recreational Resource | Potentially Applicable Impacts
--- | --- | ---
32.1-32.2 | RCSD Parks System Master Plan Trails (L9, M3) | R-1
32.2-32.6* | RCSD Parks System Master Plan Trail (M3) | R-1
34.6-34.7 | LACRHT (Little Buttes) | R-1
36.8-37.0* | LACRHT (Little Buttes Trail and California Poppy) | R-1
45.1-45.2 | LACRHT (North Side) | R-1
45.7-46.1* | LACRHT (North Side) | R-1
46.2-46.3 | Forest Road - Burns Road (7N01) (OHV) | R-1, R-5
46.5-46.6 | Forest Road 6N04.2 OHV | R-1, R-5
46.9-47.3* | Pacific Crest Trail | R-1, R-2, R-4
47.2** (approximate location) | Green Valley Station (Administration/Interpretive Site and Trailhead) | R-1
49.2-50.1 | San Francisquito Canyon Eligible Wild and Scenic River | N/A
50.1-50.3* | San Francisquito Canyon Eligible Wild and Scenic River; Forest Road 7N02 (OHV) | R-1, R-2, R-5
50.3-51.8* | USFS Trail; San Francisquito Canyon Eligible Wild and Scenic River | R-1, R-2
51.8-52.1 | San Francisquito Canyon Eligible Wild and Scenic River | N/A
52.1-53.2 | San Francisquito Canyon Eligible Wild and Scenic River; City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-5
53.2-53.5* | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-2, R-5
53.7-53.8 | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-5
53.9-54.0 | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-5
54.3-54.6* | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-2, R-5
54.9-55.7* | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-2, R-5
56.0*** (approximate location) | A Place to Shoot (permitted commercial target shooting range) | R-1
58.0*** (approximate location) | Drinkwater OHV Staging Area (Parking/Staging Trailhead for OHV System) | R-1
58.0-58.2* | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-2, R-5
58.8-59.0* | Pettinger Canyon Road 5N28 | R-1, R-2
59.1-59.2 | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-5
59.3-59.4 | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-5

*adjacent to and within impact zone
**within 1-mile study corridor
***outside 1-mile study corridor

RCSD – Rosamond Community Services District
LACRHT – Los Angeles County Riding and Hiking Trail

The discussion below includes information on the direct and indirect effects of the Alternative 2 transmission line.

**Directly or indirectly disrupt or preclude activities in established federal, State, or local recreation areas (Criterion R1)**

**Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.**

Impact R-1 would occur for all Developed Recreation resources that would be traversed by the proposed transmission line. Recreational resources that would be crossed would not necessarily be physically impacted by the presence of the overhead transmission line, because in most cases the transmission line would span over the resource or area without any ground impact. Although it is not anticipated that recreation resources crossed by the Alternative 2 transmission line would be physically impacted, such
resources and areas would be restricted from use during construction activities in order to protect the safety of public recreationists and to accommodate the transport and use of equipment and activities required to construct the new transmission line. During construction activities, ground work would be required at each structure pad location as well as along select roadways between the locations, as materials to build the structures would be transported by truck to the structure sites. As a result, resources and areas crossed by the transmission line would be temporarily closed during construction activities, for only as long as required to complete activities in a given location. Recreational areas located in the near vicinity of the proposed route (e.g., Drinkwater OHV Staging Area, A Place to Shoot, and Green Valley Station) may also experience temporary use disruptions due to factors such as construction noise and the potential need to stage construction vehicles, equipment, or infrastructure.

In addition to the developed recreation resources (PCT, Rosamond Community Services District [RCSD] Parks System Master Plan trails, Los Angeles County Riding and Hiking Trail [LACRHT] trails, San Francisquito Canyon Eligible Wild and Scenic River, BLM routes, and USFS roads and trails), dispersed recreation opportunities would also be affected due to temporary access restrictions during the construction period, as well as possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. The degree to which dispersed recreation opportunities would be affected in the ANF depends upon which Recreation Opportunity Spectrum (ROS) designation would be affected by closures or restrictions related to Alternative 2 construction. The type of recreational resource or opportunity available to the public largely depends upon the applicable ROS objective. In general, recreational activities within and adjacent to the Project ROW would be temporarily suspended during transmission line construction.

Other resources may be temporarily restricted from use due to access restrictions resulting from the use of BLM and NFS roads and trails for construction activities. Identification of the exact roads and necessary improvements that would be required during Project construction is pending finalization of a Project Road Plan, which would be produced during final engineering for the Project. However, it is assumed that developed or dispersed recreation located within 0.5 mile of the proposed route would have the potential to be affected by Impact R-1 as a result of construction-related road closures.

Recreational hunting activities permitted in Zone D-11 would be affected by Impact R-1 as a result of construction noise, traffic, and road closures. The aspect of Project construction which would likely be most disruptive to recreational hunting activities is road closures that would potentially restrict hunters from accessing certain areas of the ANF. In addition to road closures that could restrict hunters’ movement through the Forest, recreational hunting could also be affected by aspects of Project construction such as noise from heavy equipment that may affect the presence and movement of wildlife.

Impact R-1 would also apply to OHV routes that would need to be improved or upgraded to accommodate construction vehicle traffic. Under Angeles National Forest Roadway Operational Maintenance Level Guidelines, OHV use is restricted to roads maintained to OML 2 due to safety concerns associated with passenger vehicles and OHVs traveling on the same roadways (OML 2 roads are not accessible by passenger vehicles). If an OML 2 road is required for construction access during Project installation, roadway requirements associated with construction vehicle access would require that upgrades comparable to OML 3 would need to be applied, thereby temporarily disrupting OHV activity during the construction period. However, any such road improvements would be temporary and would not be maintained following the Project construction period; designated OMLs would not be permanently altered.

It is also possible that, if existing OHV routes are restricted during Project construction (Impact R-1), some OHV recreationists may choose to utilize illegal OHV routes or create new, unauthorized OHV routes in the Forest, thereby resulting in unmanaged or unauthorized recreational uses (refer to Impact R-5, Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities).
Temporary access restrictions to established recreational areas or disruption of activities within such areas as a result of Project construction would negatively affect members of the public who would otherwise use the affected recreational resources. Such temporary impacts could also lead to unauthorized recreational uses of NFS lands. Coordination between LADWP and the USFS regarding road improvements and construction timelines would facilitate advanced planning for any potential access restrictions or recreational use disruptions that would occur under Impact R-1. The specifically recommended mitigation measures would help to reduce the significance of Impact R-1.

Environmental Effects of Specifically Recommended Mitigation Measure SRM R-1d

While R-1d is recommended to reduce impacts to recreationists using the PCT and/or other trails, this measure may adversely affect other areas. A trail diversion could potentially disturb sensitive biological resources or damage cultural resources that may be located along the diverted route. Such potential impacts are similar to the effects of other Project activities, and would require the implementation of mitigation measures.

CEQA Significance

Under Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, temporary access restrictions to established recreational resources or disruption of activities within such resources as a result of construction activities would occur. These activities would negatively affect members of the public who would otherwise use the affected recreational resources. Implementation of specifically recommended mitigation measures R-1a through R-1e, would reduce Impact R-1 to a less than significant level.

Substantially contribute to the long-term loss or degradation of the factors that contribute to the value of federal, State, local, or private recreational facilities (Criterion R2)

Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as the Alternative 2 transmission line
would be located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

**CEQA Significance**

With implementation of GP-50 listed above, Impact R-2 on Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be less than significant.

**Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail.**

The Alternative 2 transmission line would include one crossing of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Although this type of noise would be disturbing, it would be temporary and would not lead to permanent degradation of the backcountry experience enjoyed by PCT recreationists. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the Proposed Action would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures. It should be noted here that visual resources and noise both contribute to the pristine backcountry experience of the PCT. As such, the visual and noise aspects of the Project are only discussed here in terms of their contributions to recreation, not in terms of specific Visual and Noise impacts that would be introduced by the Proposed Action. In terms of the recreational experiences of the PCT, the following specifically recommended mitigation measures would be required to minimize such effects.

**CEQA Significance**

Construction of Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would not result in a permanent reroute of the PCT and no permanent physical impacts to the PCT would occur as a result of Project activities. Additionally, the Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, because the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of new transmission towers, the following specifically recommended mitigation measures, would be required to minimize such effects: R-1a and R-1d.

Implementation of these specifically recommended mitigation measures would reduce impacts to the recreational experience of the PCT to a less than significant level.

**Impact R-4: Contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.**

Impact R-4 would occur if existing OHV routes are permanently removed from use as a result of Project activities. Construction or operation and maintenance activities could result in the long-term loss or
degradation of OHV routes if such activities would require that OHV routes or trails be repeatedly and/or frequently closed due to maintenance activities, or if OHV routes are permanently closed or altered. The Alternative 2 transmission line would traverse NFS lands in the ANF that have an ROS designation of Semi-Primitive Motorized, which permits motorized use of local primitive or collector roads and includes trails suitable for off-highway vehicles such as motorbikes and ATVs.

It is expected that during construction, the transport of construction vehicles and equipment to transmission structure sites would require that access roads be upgraded to OML 3 standards, to accommodate the large size of construction vehicles, equipment, and materials. Upgrading of roads designated as OML 2 to OML 3 standards during the construction period would result in temporary restriction of OHV use, or temporary loss of OHV opportunities, until the affected roads are returned to OML 2 conditions. Operation and maintenance activities would require that ground-access be available to all transmission structure sites; however, operation and maintenance would not require the heavy equipment required during construction and, therefore, roads designated as OML 2 would be sufficient to accommodate operation and maintenance activities. Road upgrades that are applied during the construction period would be strictly temporary; no permanent upgrades to existing OML standards would occur as a result of the Project. Therefore, any loss of recreational opportunity to OHV users would be temporary in nature. To minimize the effects of Impact R-4, R-2 is recommended.

Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2

While R-2 would avoid the permanent loss of OHV routes on OML 2 designated roads, this measure may adversely affect other issue areas. The activities that would be associated with returning improved roads to existing maintenance practices would require earthmoving equipment, which would increase construction noise within the ANF. Earthmoving and other equipment that may be required for this measure would also contribute to additional air quality emissions. In addition, greater land disturbance as a result of road activities would contribute to increased soil erosion, which would potentially affect water quality.

Such potential impacts are similar to the effects of other Project activities, and would require the implementation of mitigation measures.

CEQA Significance

Under Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, road improvements or access restrictions that would result in a loss of recreational opportunity for OHV users would be temporary in nature. Designated OML standards for NFS roads would not be permanently altered; however, OHV use would be restricted on roadways improved above OML 2 standards (OML 3, 4, or 5) until the affected roadways are returned to existing conditions. In order to ensure that existing OHV routes would not be permanently removed from OHV use due to Project construction, R-2 would be required. Implementation of this specifically recommended mitigation measure would ensure coordination between LADWP and the USFS in developing and implementing necessary road improvements in a way that is consistent with existing OML designations. Due to the availability of OHV opportunities throughout the ANF and the temporary nature of Impact R-4 to OHV opportunities along the Proposed Action alignment, implementation of R-2 would reduce Impact R-4 to a less than significant level.

Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Long-term loss or degradation of recreational resources or opportunities could occur through unmanaged or unauthorized use of such resources. Unmanaged recreation could occur if the Project facilitates access to areas that are not intended or suitable for certain recreational uses, particularly through the creation or improvement of roadways in the ANF. Two types of roads are associated with construction and operation
of the Project: access roads and spur roads. Access roads serve as the main transportation route along the Project ROW, whereas spur roads are smaller roads that connect access roads directly to structure sites and are not considered part of NFS roads. Unmanaged recreation activities (particularly OHV-related) currently occur throughout the ANF via existing spur roads and utility corridors.

During construction and operation of the Project, existing roadways would be utilized wherever possible to accommodate necessary traffic of vehicles and equipment. However, construction of new roads and improvement of existing roads would also be required in order to provide access to the proposed route during construction and operation of the Project. In some areas, improvement of existing roads and construction of new roads may provide access to areas that are not currently accessible by roads. As a result, these new and improved roads could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes, as described above.

In addition, some recreational resources may become temporarily inaccessible or precluded from use during construction and/or operation and maintenance of the Project, as described above for Impact R-1 (Construction activities would restrict access to or disrupt activities within established recreational areas) and Impact R-2 (Operational and maintenance activities would restrict access to or disrupt activities within established recreational areas). This could potentially result in unmanaged recreational uses, as recreationists seek alternative or comparable recreational resources to those which are made unavailable by Project activities.

As discussed above, the Project would be situated on BLM land and NFS lands in the ANF. Although existing roads would be utilized to the fullest extent possible during Project construction and operation, roadway improvements would be required in some areas, particularly for hillside structures in the ANF. The creation of new roads and the improvement of existing roads could potentially facilitate OHV access to areas of the ANF that are not authorized for OHV use, which would contribute to resource damage and degradation. As discussed in the analysis of Impact R-4 (Contribute to degradation of Off-Highway Vehicle [OHV] trails or Open Riding Areas, or would result in a loss of recreational opportunity for OHV users), it is expected that Project construction activities would require that some roads in the Forest be upgraded to OML 3 standards, which would preclude the use of OHVs; such preclusion or restriction from use may encourage some OHV recreationists to utilize other roads, which may not necessarily be designated for OHV use, thereby participating in unmanaged recreation.

Identification of specific roads and necessary improvements required for Project construction would be determined in LADWP’s Project Road Plan, which would be included as part of final engineering. Recreation Opportunity Spectrum objectives have been designated for each roadway in the Project vicinity. These ROS designations are indicative of the types of recreational activities the USFS intends to encourage in the area. If unmanaged or unauthorized OHV use occurs in an area that is incompatible with OHV recreation (e.g., ROS Semi-Primitive Non-Motorized) as a result of Project-related road improvements in the area, such unmanaged recreation would be contrary to USFS management objectives of the relevant OHV-incompatible ROS designation.

Additionally, it is possible that some OML 1 roads may need to be upgraded to OML 2 or higher to facilitate Project construction access. Such upgrades would essentially create new roads that are passable by OHVs and as a result, some OHV recreationists may choose to participate in OHV recreation on these improved roads, regardless of whether such roads are intended by the ANF to be managed for OHV use. The installation of new access or spur roads where none currently exist would have the potential to facilitate unmanaged recreational uses. As discussed, of particular concern with regards to unmanaged recreation in the ANF is the potential for OHV recreationists to use Project roads to operate OHVs in areas where such use is prohibited by ANF management goals and objectives.
**CEQA Significance**

Under Alternative 2, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, improvement of existing roads and construction of new access and spur roads associated with the Project could facilitate unmanaged recreational uses, particularly OHV use, within the ANF. In order to minimize the potential for unmanaged recreation to occur, implementation of specifically recommended mitigation measures R-2 and R-3 would be required. With implementation of these specifically recommended mitigation measures, Impact R-5 would be reduced to a less than significant level.

### 7.3.3 Alternative 2a

Impacts associated with Alternative 2a would primarily be the same as impacts associated with Alternative 2 (Proposed Action). This Alternative, however, would introduce a re-route of the proposed transmission line around the unincorporated community of Green Valley, eliminating many of the land use impacts that occur in that community under the other Alternatives. The reroute would require helicopter construction along Alternative 2a for two miles. Direct and indirect effects associated with Alternative 2a are discussed below.

**Alternative 2a Impacts—Land Use**

The discussion below includes information on the direct and indirect effects of the Alternative 2a transmission line.

**Conflict with any applicable federal, State, or local land use plans, goals, or policies (Criterion LU1)**

**Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, State, or local land use plans, goals, or policies.**

For the Alternative 2a transmission line, the same land use plans and goals and policies outlined for Alternative 1, would apply. However, for the Alternative 2a transmission line, a BCNM land use zone would also be traversed. As described in the ANF Land Management Plan, the BCNM land use zone is considered not suitable for major utility corridors; therefore, the Alternative 2a transmission line would be inconsistent with the ANF Land Management Plan. In addition, Alternative 2a would cross the PCT several miles from existing transmission line crossings, giving the effect of spreading the impact along the trail instead of consolidating it. The Alternative 2a transmission line would also run along and close to the PCT for two miles, resulting in a greater impact on visual resources. Standard ANF S-1 requires protection of the scenic foreground from the PCT. This Forest Standard may not be met, and if not the plan would need to be amended to ensure compliance with the ANF Land Management Plan.

**CEQA Significance**

Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would traverse a BCNM land use zone, which is considered not suitable for major utility corridors, and would therefore be inconsistent with the ANF Land Management Plan. The Alternative 2a transmission line would also result in visual impacts to the PCT. Standard ANF S-1 requires protection of the scenic foreground from the PCT. This Forest Standard may not be met, and if not the plan would need to be amended to ensure compliance with the ANF Land Management Plan. Impacts related to potential conflicts with applicable land use plans, goals, or policies would be at a level of less than significant (refer to CEQA significance discussion under the Alternative 2).

**Preclude a permitted land use, or create a disturbance that would diminish the function of a particular land use (Criterion LU2)**
Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

With the exception of the unincorporated community of Green Valley, residential properties affected by the Alternative 2a transmission line would remain the same as those described for the Alternative 2 transmission line. Project ground and helicopter construction activities would temporarily disrupt existing residential land uses and residents within and/or adjacent to the ANF, primarily in and around the vicinity of the unincorporated community of Green Valley. These residents would be subjected to increased noise levels and air quality emissions for the duration of construction. Construction would additionally cause temporary disturbances due to site-specific access limitations and parking restrictions, and increased traffic along construction and detour routes.

As previously stated in the discussion of Alternative 2, an area of five acres in size would be required for each primary staging area. Helicopter staging areas would also be required to support helicopter construction of transmission structures within the ANF. Other construction activities would require the improvement and construction of some new access and spur roads in order to accommodate construction-related heavy equipment. The estimated total construction-related temporary disturbance of land for the Alternative 2a transmission line ranges between 405 to 409 acres.

Construction-related disruptions to residential land uses would be temporary in nature. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts of the Alternative 2a transmission line to residential land uses would be adverse, but less than significant.

**CEQA Significance**

Construction-related disruptions to residential land uses associated with Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be temporary in nature. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts to residential land uses would be adverse, but less than significant.

Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.

Construction of portions of the Alternative 2a transmission line would require the use of non-residential lands (primarily ANF) for purposes other than their existing uses to accommodate transmission structure placement. Helicopters would also be utilized for the construction of transmission structures to eliminate the need for new access roads to structure locations, and to minimize land disturbance associated with crane pads, structure laydown areas, and the trucks and tractors used for delivery of structures to sites. With the exception of possible differences with ANF resource management and recreational uses, other construction-related impacts associated with non-residential uses with the Alternative 2a transmission line would be the same for the Alternative 2 transmission line.

Public and private airports are also located in proximity to, but farther than one-half mile from, the Alternative 2a transmission line. In addition, the Alternative 2a transmission line would involve numerous helicopter flyovers, landings and takeoffs from the helicopter staging areas. Construction-related activities associated with the Alternative 2a transmission line could conflict with the Los Angeles County Sheriff Department’s and USFS’s helicopter flight activities, including both routine operations and emergency response efforts. Temporary conflicts with the helicopter activities of the Los Angeles County Sheriff Department and the FAA’s AC 91-36 C would be adverse.

FAR Title 14, Part 77 establishes the standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (3.79 miles) of an airport. Prior to construction, LADWP would consult with the FAA and ensure the filing of all forms and
associated specifications per the requirements of FAR Title 14, Part 77. In addition, prior to the start of construction, LADWP would consult with the Los Angeles County Sheriff Department and the USFS (including GP-21) to ensure that construction, operation, and maintenance of Alternative 1 would not conflict with local aircraft operations or associated safety provisions.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts of the Alternative 2a transmission line to residential land uses would be adverse, but less than significant.

**CEQA Significance**

With implementation of GP-21, GP-34, GP-37, and GP-50, as well as pre-construction and construction phase measures, construction-related impacts to non-residential land uses associated with Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be adverse, but less than significant.

**Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.**

The Alternative 2a transmission line would require new ROW. The ROW would partially fall within the boundaries of the Mojave, Soledad Mountain-Elephant Butte, and Willow Springs Specific Plan areas. In addition, the Alternative 2a transmission line would traverse or lie adjacent to portions of undeveloped residential subdivisions. The Alternative 2a transmission line would result in the permanent disturbance of between 59 to 75 acres of land. The Alternative 2a transmission line would not remove any residences along the route.

Similar to Alternative 2 above, there is potential for Alternative 2a to result in taking of private property and ancillary structure(s) through use of eminent domain or exercise of existing property rights. The use of eminent domain would only occur in the event that negotiations between LADWP and individual property owners do not result in agreement by both parties. This process would be conducted according to California State law. The full extent of this impact is unknown at this time, as negotiations with property owners would not occur until after decisions on the Project route are made by the lead agencies, through the CEQA/NEPA process. In some instances, the LADWP could instead seek an easement on the property, rather than ownership in fee.

Operation and maintenance of the Alternative 2a transmission line would involve periodic inspections, approximately once per year, via helicopter and/or truck. In comparison to the Alternative 2 transmission line, the Alternative 2a transmission line would likely result in a greater number of helicopter inspections due to the number of transmission structures that would not be accessible by truck. However, the long-term operation and maintenance of the Alternative 2a transmission line would not differ substantially from the Alternative 2 transmission line. As such, preclusion of, or incompatibility with, current and future residential land uses for the Alternative 2a transmission line would be considered adverse but less than significant. Outside of the ANF, all other long-term residential land use impacts associated with the Alternative 2a transmission line would be the same as described for the Alternative 2 transmission line.

**Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.**

Operations and maintenance of the Alternative 2a transmission line would involve periodic inspections, approximately once per year, via helicopter and/or truck. In comparison to the Alternative 2 transmission line, the Alternative 2a transmission line would likely result in a greater number of helicopter inspections due to the number of transmission structures that would not be accessible by truck. The long-term operation and maintenance of the Alternative 2a transmission line would not differ substantially from the Alternative 2 transmission line. As such, preclusion of, or incompatibility with, non-residential land uses for the Alternative 2a transmission line would be considered adverse but less than significant.
However, conflicts between the use of helicopters for operations and maintenance and the Los Angeles County Sheriff Department’s and USFS’s routine and emergency helicopter operations within the ANF could occur. Additionally, operations and maintenance of the Alternative 2a transmission line may periodically conflict with, or otherwise impede, other operations within the ANF, such as ranger stations, fire stations, and private and public communication and utility facilities. The Alternative 2a transmission line would also be the only transmission line among the Alternatives that would not be entirely within designated utility corridors on National Forest System lands. The ANF LMP gives preference to placing transmission lines within these designated corridors, although it is not required, and no plan amendment specific to this impact would be required for the Alternative 2a transmission line. See impact LU-1 for Project-specific plan amendments which would be required for the Alternative 2a transmission line.

Outside of the ANF, all other long-term non-residential land use impacts associated with the Alternative 2a transmission line would be the same as described for the Alternative 2 transmission line.

**CEQA Significance**

No significant preclusions of, or restrictions to, the management and uses of these lands associated with Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be anticipated, due to implementation of GP-50.

**Conflict with military operations (Criterion LU3)**

**Impact LU-6: Operation would conflict with military operations.**
The Alternative 2a transmission line would be located within a portion of the 20,000-square-mile R-2508 military range complex. The R-2508 Complex includes all the airspace and associated land presently used and managed by three principal military activities in the Upper Mojave Desert region: Air Force Flight Test Center, Edwards Air Force Base; National Training Center, Fort Irwin; and Naval Air Warfare Center Weapons Division, China Lake. LADWP would provide a complete copy of the Project’s application, including the location of the entire transmission line alignment and the heights of structures to be located, to the Department of Defense.

**CEQA Significance**

Review by the Department of Defense would ensure that Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would not conflict with military operations.

**Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.**
It should be noted that future energy transport projects could be located within this designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of a future project, the future project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would...
depend directly on the existing land use in the future project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for future projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.

**Alternative 2a Impacts—Agriculture**

The discussion below includes information on the direct and indirect effects of the Alternative 2a transmission line.

Agricultural Resource impacts associated with Alternative 2a would be the same as described for the Proposed Action (Alternative 2).

**Alternative 2a Impacts—Recreation**

Impacts associated with Alternative 2a would primarily be the same as impacts associated with the Proposed Action (Alternative 2). This Alternative, however, would introduce a reroute of the proposed transmission line around the unincorporated community of Green Valley. The reroute would also require helicopter construction for four miles. Direct and indirect effects associated with Alternative 2a are discussed below and summarized in Table 4.2.5-7 (Summary Comparison of Impacts – Recreation).

Potential impacts of Alternative 2a that could affect Developed Recreation resources and opportunities (Green Valley Bypass only) are presented below in Table 7-3. A description of each impact related to recreation is presented in the text following the table.

**TABLE 7-3. RECREATION IMPACTS APPLICABLE TO DEVELOPED RECREATION RESOURCES – ALTERNATIVE 2A**

<table>
<thead>
<tr>
<th>Milepost(s)</th>
<th>Recreational Resource</th>
<th>Potentially Applicable Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0-01</td>
<td>LACRHT (North Side)</td>
<td>R-1</td>
</tr>
<tr>
<td>2.3-2.4</td>
<td>Forest Road 7N02 (OHV)</td>
<td>R-1, R-5</td>
</tr>
<tr>
<td>3.2-3.3</td>
<td>Pacific Coast Trail</td>
<td>R-1, R-2, R-4</td>
</tr>
<tr>
<td>4.9-5.9</td>
<td>Tule IRA – 1C</td>
<td>R-1, R-2</td>
</tr>
<tr>
<td>6.4-6.5</td>
<td>San Francisquito Canyon Eligible Wild and Scenic River</td>
<td>N/A</td>
</tr>
<tr>
<td>6.5-6.6</td>
<td>San Francisquito Canyon Eligible Wild and Scenic River; LACRHT (Unidentified)</td>
<td>R-1</td>
</tr>
<tr>
<td>56.0** (approximate location)</td>
<td>A Place to Shoot (permitted commercial target shooting range)</td>
<td>R-1</td>
</tr>
<tr>
<td>58.0** (approximate location)</td>
<td>Drinkwater OHV Staging Area (Parking/Staging Trailhead for OHV System)</td>
<td>R-1</td>
</tr>
</tbody>
</table>

LACRHT – Los Angeles County Riding and Hiking Trail

**Directly or indirectly disrupt or preclude activities in established federal, State, or local recreation areas (Criterion R1)**
Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas

The Alternative 2a transmission would have similar impacts for Impact R-1 as with the Proposed Action (Alternative 2). The Alternative 2a transmission line, however, would be adjacent to the Tule Inventoried Roadless Area (IRA). IRAs are identified by the USFS as Primitive ROS objectives. In general, IRAs would be less impacted by Alternative 2a than by Alternative 1, which directly crosses an IRA. Both Alternatives would cause disruption to the solitude and natural values of the IRA mainly by the use of helicopters. As described in Alternative 2, Impact R-1 would occur in recreational areas which would be traversed by the Project because these areas would require temporary closure during construction activities and therefore, such areas would be temporarily restricted from use. In addition, recreational resources or opportunities may also be restricted from use if access roads or trails to such areas are blocked or restricted during construction activities. Recreational areas located in the near vicinity of the proposed route (e.g., Drinkwater OHV Staging Area and A Place to Shoot) may also experience temporary use disruptions due to factors such as construction noise and the potential need to stage construction vehicles, equipment, or infrastructure. Although helicopter construction is expected to avoid the need to construct or improve some roads in the ANF, ground access would still be required to pulling and stringing locations along the Alternative 2a transmission line, as well as to helicopter staging areas.

It is expected that recreational activities located between the helicopter staging areas and transmission structure sites would be disrupted during helicopter use, particularly as related to the enjoyment of solitude, and a natural outdoor environment. Such disturbance would result from factors that are inherent to the use of helicopters, including visual prominence, increased emissions (compared with ground construction), and operational noise. Specific flight paths are not known at this time and would be determined based upon a variety of factors, including final engineering and weather conditions during the construction period. During helicopter operations, public access to defined areas would be restricted.

CEQA Significance

With implementation of the specifically recommended mitigation measures R-1a through R-1e, Impact R-1 on Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be less than significant.

Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas. Vegetation management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.
The portion of the Alternative 2a transmission line on NFS lands which would be outside an existing utility corridor would see an increase in O/M activity as there are no lines being maintained there now. However, these activities normally do not require restrictions or closures to recreational use on the ANF. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.
CEQA Significance

With implementation of GP-50 listed above, Impact R-2 on Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be less than significant.

Impact R-3: The Project would cause or contribute to degradation of the Pacific Crest National Scenic Trail

The Alternative 2a transmission line would result in the greatest extent of Impact R-3 of all the Alternatives. The Alternative 2a transmission line would include one crossing of the PCT, but would cross the trail several miles from existing transmission line crossings, giving the effect of spreading the impact along the trail instead of consolidating it. This is contrary to the preference of the Pacific Crest Trail Association (PCTA) as indicated during scoping. PCTA represents all trail users and is recognized as a primary partner to the USFS in management of the PCT. The Alternative 2a transmission line would also run along and in close proximity to the PCT for two miles, resulting in even greater impacts from sights and sounds of construction (temporary) and greater impact on visual resources (permanent). As described under Alternative 2, this impact addresses the potential loss or degradation to physical aspects of the PCT as well as the potential loss or degradation of the backcountry experience. The discussion provided above for Impact R-1 of Alternative 2a describes that certain factors associated with helicopter use, such as aesthetics, emissions, and noise, would result in a more substantial effect on recreational resources and public recreationists than would ground-based construction. Similarly, helicopter construction in the vicinity of the PCT would have a larger contribution to the degradation of the backcountry experience than would ground based construction activities. Impact R-3 for the Alternative 2a transmission line would require implementation of specifically recommended mitigation measures. Although specifically recommended mitigation measures would minimize impacts to the PCT, they would not reduce them to a level that is less than significant. Impact R-3 for Alternative 2a would remain significant.

CEQA Significance

Although specifically recommended mitigation measures R-1a and R-1d would minimize impacts to the PCT, they would not reduce them to a level that is less than significant. Impact R-3 for Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would remain significant.

Impact R-4: The Project would contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.

The Alternative 2a transmission line has the greatest potential for Impact R-4 in terms of numbers and mileage of ANF designated OHV routes. As described under Alternative 2, this impact could occur if Project activities would require that OHV roads or trails be repeatedly and frequently closed due to maintenance activities, or permanently closed or altered due to operational activities. As previously discussed, the use of helicopters for construction of the Alternative 2a transmission line would avoid the need to upgrade or construct certain roadways. However, the Alternative 2a transmission line would require ground access to pulling and stringing sites and staging areas. Road upgrades that are applied during the construction period would be strictly temporary; no permanent upgrades to existing OML standards would occur as a result of the Project. Therefore, any loss of recreational opportunity to OHV users would be temporary in nature. To minimize the effects of Impact R-4, R-2 is recommended.
CEQA Significance

Under Alternative 2a, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, implementation of R-2 would reduce Impact R-4 to a less than significant level.

**Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.**

Impact R-5 would be similar for the transmission line of Alternative 2a and Alternative 2. As described under Alternative 2, Impact R-5 would occur if Project activities result in unauthorized or unmanaged recreational activities. For instance, improvement of existing roads and installation of new roads could provide access to areas that were not previously accessible by roads. As a result, these new and improved roads could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes, such as OHV use in restricted USFS (ANF) areas. In addition, some recreational resources may become temporarily inaccessible during construction and/or maintenance of the proposed transmission line, which could potentially result in unmanaged recreational uses, as recreationists seek alternative or comparable recreational resources to those which would be made unavailable. As previously discussed, the use of helicopters for construction of the Alternative 2a transmission line would avoid the need to install or improve spur roads to transmission structures that would be constructed by helicopter. Although ground access to some of the same pulling and stringing sites as the Alternative 2 transmission line would still be required, the Alternative 2a transmission line would require fewer spur road installations, as more structures would be constructed via helicopter.

CEQA Significance

Implementation of specifically recommended mitigation measures R-2 and R-3 would reduce Impact R-5 on Alternative 2a, including the new 230 kV double circuit transmission line and Project components common to all action Alternatives, to a less than significant level.

7.3.4 **Alternative 3 (Segments A, B, F, and I)**

**Alternative 3 Impacts—Land Use**

The discussion below includes information on the direct and indirect effects of the Alternative 3 transmission line.

Conflict with any applicable federal, State, or local land use plans, goals, or policies (Criterion LU1)

**Impact LU-1: Construction, operation or maintenance would conflict with relevant federal, state, or local land use plans, goals, or policies.**

The Alternative 3 transmission line would be located within the same jurisdictions as Alternative 2. However, under Alternative 3, lands under the jurisdiction of the City of Lancaster and City of Palmdale would also be traversed.

CEQA Significance

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, impacts related to potential conflicts with applicable land use plans, goals, or policies would be at a level of less than significant (refer to CEQA significance discussion under the Proposed Action).
Preclude a permitted land use, or create a disturbance that would diminish the function of a particular land use (Criterion LU2)

Impact LU-2: Construction activities would temporarily disrupt, displace, or preclude existing residential land uses.

Some construction-related activities for the Alternative 3 transmission line would require the temporary use of lands for purposes other than their existing uses (i.e., staging areas, access roads, and pulling, tensioning, and splicing sites). The use of these areas could temporarily restrict access to, or the use of, lands that surround them as well. Construction would additionally cause temporary disturbances due to site-specific access limitations and parking restrictions, increased traffic along construction routes and detour routes, increased dust generation and noise, and changes in the overall visual character of an area due to the presence of construction-related equipment, personnel, and associated activities.

Staging areas would be selected on the basis of accessibility to construction locations and proximity to transmission line and substation access roads. The number of sites used for pulling/tensioning/splicing of conductor wire would vary by route length and specific construction-related needs.

Construction of the Alternative 3 transmission line would require the improvement of some existing access and spur roads in order to accommodate construction-related heavy equipment; the construction of some new access and spur roads would additionally be needed. The estimated total construction-related temporary disturbance of land for the Alternative 3 transmission line ranges between 512 to 520 acres.

Project construction activities would temporarily disrupt existing residential land uses and residents. Residential uses along or near the Alternative 3 transmission line include the cities of Lancaster and Palmdale as well as the unincorporated communities of Quartz Hill, Leona Valley, Agua Dulce, Del Sur Ranch, Joshua Ranch, Ritter Ranch and City Ranch (Anaverde). These residents would be subjected to increased noise levels and air quality emissions for the duration of construction. Construction would additionally cause temporary disturbances due to site-specific access limitations and parking restrictions, and increased traffic and congestion along construction and detour routes.

Construction-related impacts could also cause direct effects on residential land uses within approximately 1,000 feet of either side of a given ROW, or within approximately 1,000 feet of staging areas, substation sites, and new and improved access and spur roads due to the presence of construction crews, heavy equipment operation, and associated crew, equipment, and material access from these sites. Residences within 1,000 feet of construction could be temporarily disturbed by these activities.

Indirect effects could also occur at distances greater than 1,000 feet from construction sites due to the placement of temporary access roads, which could cause limited access to some properties, and the need for construction-related detours through neighborhoods which are not directly affected by construction activities. Although these disturbances would be temporary in nature, restrictions and preclusions of, and inconveniences to, the daily routines and activities of local residences due to construction may be substantial if not managed and residents kept informed.

Due to the proximity of some residential uses to construction-related activities, in conjunction with the intensity of the workforce and equipment needed and the duration of construction itself, the impacts to residential uses would be considered adverse. This impact occurs to the greatest extent under the Alternative 3 transmission line, as this transmission line has the highest number of residences in proximity to the proposed ROW.

Construction-related disruptions to residential land uses would be temporary in nature. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts of the Alternative 3 transmission line to residential land uses would be adverse but less than significant.
**CEQA Significance**

Construction-related disruptions to residential land uses associated with Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be temporary in nature. With implementation of GP-34, GP-37, GP-50, and GP-59, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts to residential land uses would be adverse but less than significant.

**Impact LU-3: Construction activities would temporarily disrupt, displace, or preclude existing non-residential land uses.**

Construction of the Alternative 3 transmission line would require the use of non-residential lands for purposes other than their existing uses to accommodate transmission structure placement. Portions of the impact corridor are used for non-residential uses such as agriculture including livestock grazing and apiaries, resource management, and recreational purposes. Areas adjacent to the impact corridor are used for utilities (including access roads), as well as commercial and industrial facilities. Public, private, and military airports and air fields are also located in proximity to the Alternative 3 transmission line. In addition, the Alternative 3 transmission line would traverse USFS land use zones, and Places within the ANF. Although the desired condition and program emphasis for each Place do not specifically address transmission lines, construction of the Alternative 3 transmission line would occur within an existing designated utility corridor; consequently, construction of the Alternative 3 transmission line would not impact the Places that it would traverse.

Within the impact corridor, construction activities associated with transmission structure installation and removal sites, staging areas, and pulling, tensioning and splicing sites would displace or disrupt non-residential land uses. Access to these uses may be blocked or detoured, thus affecting the delivery and/or shipment of goods and services, as well as customer and employee ingress and egress. Additionally, site-specific operations would be impaired or prohibited at some locations due to the need to clear areas for construction equipment and materials. Following the completion of construction, site-specific uses may be compromised if affected areas are not restored to their pre-construction condition.

Construction within an approximate 1,000 feet of either side of (including outside of) the Alternative 3 transmission line ROW would also result in the same types of effects as described above (Impact LU-2) due to site-specific tower removal, assembly and installation, and pulling, tensioning and splicing activities, the need for temporary access roads, road detours and closures, and primary and secondary staging areas. Although the degree of these indirect effects outside of the ROW would not be expected to be as pronounced as within the ROW itself, impacts to non-residential uses in close proximity to construction zones could still be adverse at a site-specific level.

Public and private airports are also located in proximity to, but farther than one-half mile from, the Alternative 3 transmission line. Transmission structure installation activities, however, could temporarily affect aircraft movement within the vicinity of transmission structure pad locations due to their height. Final transmission structure heights would range between 110 feet and 195 feet. Additionally, the construction of transmission structures within the ANF could temporarily affect aircraft movement, as well as those land uses (both non-residential and residential) that are in close proximity to transmission structure sites; these effects may also be adverse at a site-specific scale.

FAR Title 14, Part 77 establishes the standards for determining obstructions in navigable airspace, including height limitations on structures taller than 200 feet or within 20,000 feet (3.79 miles) of an airport. Prior to construction, LADWP would consult with the FAA and ensure the filing of all forms and associated specifications per the requirements of FAR Title 14, Part 77. In addition, prior to the start of construction, LADWP would consult with the Los Angeles County Sheriff Department and the USFS.
(including GP-21) to ensure that construction, operation, and maintenance of Alternative 3 would not conflict with local aircraft operations or associated safety provisions.

With implementation of GP-21, GP-34, GP-37, and GP-50, in conjunction with implementation of pre-construction and construction phase measures, construction-related impacts of the Alternative 3 transmission line to residential land uses would be adverse, but less than significant.

**CEQA Significance**

With implementation of GP-21, GP-34, GP-37, and GP-50, as well as pre-construction and construction phase measures, construction-related impacts to non-residential land uses associated with Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be adverse, but less than significant.

**Impact LU-4: Operation and maintenance would cause long-term disruption of existing and planned residential land uses.**

The Alternative 3 transmission line would require new ROW. A total of seven single-family residences would be traversed by the Alternative 3 transmission line. Since a residence would not be allowed within the ROW, a significant impact would result. These residences could not be avoided by re-routing around the residences. As a result, the impact would remain significant. In addition, a section of the Alternative 3 transmission line (mileposts 45.2 to 46.7) was moved to avoid removal of two residences near 90th Street West and West Avenue L. The ROW would also partially fall within the boundaries of the Mojave, Soledad Mountain- Elephant Butte, and Willow Springs Specific Plan areas. The Alternative 3 transmission line would also traverse or lie adjacent to portions of undeveloped residential subdivisions. The Alternative 3 transmission line would result in the permanent disturbance of between 91 to 135 acres of land.

There is potential for Alternative 3 to result in take of private property and ancillary structure(s) through use of eminent domain or exercise of existing property rights. In some instances, the LADWP could instead seek an easement on the property, rather than ownership, in fee. Additionally, Alternative 3 has the potential to result in take of homes through eminent domain. The use of eminent domain would only occur in the event that negotiations between LADWP and individual property owners do not result in agreement by both parties. This process would be conducted according to California State law. The full extent of this impact is unknown at this time, as negotiations with property owners would not occur until after decisions on the Project route are made by the lead agencies, through the CEQA/NEPA process. The potential for this impact is highest under Alternative 3, as it is the only alternative that would take homes as well as property.

**CEQA Significance**

The removal of seven existing single-family residences cannot be avoided. As a result, the impact would remain significant. LADWP would purchase in full or otherwise acquire the necessary leases or easements for construction, operation and maintenance of these ROWs. As such, LADWP’s required acquisition of the rights to construct and operate the Project with affected private property owners, in conjunction with its acquisition of the regulatory approvals required for new ROWs and substation sites, would inherently allow for the preclusion of future residential development. When LADWP could not resolve facility locations in discussions with property owners (e.g., creating the least potential impact to the property, mutual acceptance), LADWP would pay just compensation to the property owners based on the facility locations identified by LADWP. Alternative 3’s preclusion of, and incompatibility with, future and future residential land uses within the proposed new 230 kV double-circuit transmission line ROW, and adjacent to existing ROWs (BR-RIN 230 kV transmission line and Castaic-Olive 230 kV transmission line), would be considered adverse but less than significant.
Impact LU-5: Operation and maintenance would cause long-term disruption of existing and planned non-residential land uses.
The Alternative 3 transmission line would traverse or fall within one-half mile of lands used for a variety of purposes other than residential, such as agriculture including livestock grazing, resource management, and recreation.

Within the ANF, the Alternative 3 transmission line would be located within a USFS-designated utility corridor. The Alternative 3 transmission line would be located either within a designated utility corridor or adjacent to existing utility ROWs. While new transmission structures along these ROWs would increase the bulk of the existing transmission line corridors, they would not significantly change the character or use of the areas surrounding these ROWs. The majority of the Alternative 3 transmission line consists of existing and planned residential, agricultural and open space (resource management) uses. Potential impacts associated with existing and planned residential uses are addressed above, under Impact LU-4. Placement of the Alternative 3 transmission line in open space and resource management areas may limit activities at some transmission structure-specific locations; however, these limitations would not be anticipated to substantially affect existing and planned non-residential land uses.

Non-residential lands within one-half mile of the Alternative 3 transmission line fall under the jurisdiction of federal, State, and local agencies including the BLM, USFS, DoD, and California Department of Parks and Recreation. In addition, several airports, heliports and landing strips regulated by the FAA and Airport Land Use Commissions (or their respective alternative processes) would be located within 3.79 miles of some elements of the Project. The Alternative 3 transmission line would also traverse or be located near local (county and city) jurisdictions. However, no significant preclusions of, or restrictions to, the management and uses of these lands would be anticipated with implementation of GP-50.

CEQA Significance

No significant preclusions of, or restrictions to, the management and uses of these lands associated with Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be anticipated, due to implementation of GP-50.

Impact LU-6: Operation would conflict with military operations.
The Alternative 3 transmission line would be located within a portion of the 20,000-square-mile R-2508 military range complex. The R-2508 Complex includes all the airspace and associated land presently used and managed by three principal military activities in the Upper Mojave Desert region: Air Force Flight Test Center, Edwards Air Force Base; National Training Center, Fort Irwin; and Naval Air Warfare Center Weapons Division, China Lake. LADWP would provide a complete copy of the Project’s application, including the location of the entire transmission line alignment and the heights of structures to be located, to the Department of Defense.

CEQA Significance

Review by the Department of Defense would ensure that Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would not conflict with military operations.

Impact LU-7: Construction, operation or maintenance of additional energy transport projects within Section 368 energy corridor.
It should be noted that future energy transport projects could be located within this designated (Section 368) corridor. Subsequent authorization of project-specific ROWs may affect land use if a future ROW conflicts with existing residential, commercial, recreational, military, or other uses of the area. Short-term impacts to land use within and adjacent to the designated corridor could occur as a result of vegetation removal, road construction, noise, and fugitive dust and air emissions generated during construction.
activities. Degradation in the quality of the visual landscape for recreational users as well as changes in accessibility could also occur in some areas. There would be potential for take of both property and homes through eminent domain if the proponents of future projects were unable to negotiate agreements with private landowners. Clearing of a ROW would likely result in the permanent loss of vegetation within and possibly adjacent to the ROW. Residences, commercial uses, recreational activities, livestock grazing, and wildlife habitat could experience short-term disturbance during construction activities. Following completion of the project, the project and its ROW generally would not preclude resumption of many of those activities. The nature, magnitude, and extent of the land use impacts would depend directly on the existing land use in the project area and its compatibility with the nature of the proposed ROW and its associated project.

The designation of Section 368 energy corridors does not include project authorization. Subsequent analyses of project-specific environmental impacts would be conducted during project-specific NEPA analyses for projects seeking ROW authorization within a Section 368 energy corridor. Projects crossing State and private lands would be subject on those lands to applicable State and local environmental regulations, as well as any stipulations required by the applicable State and/or local authorizing agency.

**Alternative 3 Impacts—Agriculture**

The discussion below includes information on the direct and indirect effects of the Alternative 3 transmission line.

**Convert Farmland to non-agricultural use (Criterion AG1)**

**Impact AG-1: Construction activities would temporarily preclude the agricultural use of Farmland.**

The Alternative 3 transmission line would be constructed across 5.8 miles of Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance). Construction activities across these lands would include the construction, assembly, and installation of a 230 kV transmission line, installation of structure foundations, extension of spur roads, and the stringing of conductor and overhead ground wire. These activities would require the use of heavy equipment, such as graders, dozers, excavators, cranes, and various trucks for clearing and grading, tower assembly and installation, and stringing and pulling. Temporary disturbance of Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) from these activities would amount to 18.2 acres.

**CEQA Significance**

As the conversion of Farmland would be greater than the 10-acre threshold described in the significance criteria, these impacts would be considered significant. Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these measures, impacts to Farmland would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Impact AG-2: Operation would permanently convert Farmland to non-agricultural use.**

As described above for Impact AG-1, the Alternative 3 transmission line would traverse 5.8 miles of Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) and would include access and spur roads, transmission structures, and stringing and pulling sites. While the stringing and pulling sites would be restored following the completion of construction activities, structure footings and foundations and access and spur roads would represent a permanent disturbance to this Farmland of 2.2 acres.
While the Alternative 3 transmission line would have Farmland temporarily converted to a non-agricultural use as described under Impact AG-1, only 2.2 acres of Farmland would be permanently converted to a non-agricultural use. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland from the Alternative 3 transmission line to a non-agricultural use would be considered adverse, but not significant.

**CEQA Significance**

Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would temporarily convert Farmland greater than the 10-acre threshold described in the significance criteria and under Impact AG-1. However, only 2.2 acres of Farmland would be permanently converted to non-agricultural uses. As this total area would be less than the minimum area necessary for sustainable agriculture and less than the minimum DOC mapping unit, the permanent conversion of Farmland under Alternative 3 to non-agricultural uses would be considered adverse, but not significant.

**Interfere with agricultural operations (Criterion AG2)**

**Impact AG-3: Construction activities would interfere with agricultural operations.**

The Alternative 3 transmission line would be constructed across 4.3 miles of agricultural land. Construction activities across these agricultural lands would consist of construction of the 230 kV transmission line. These construction activities could conflict with existing agricultural operations. Clearing and grading could be required to build spur roads associated with new transmission line structures. The presence and use of heavy equipment, including road graders, dozers, excavators, and trucks, needed to construct the new spur roads could interfere with agricultural operations by damaging crops or soil, impeding access to certain fields or plots of land, obstructing farm vehicles, or potentially disrupting drainage and irrigation systems. These events could result in the temporary reduction of agricultural productivity in the area. Similar to the construction of spur roads, the construction of the 230 kV transmission line, including structure installation and wire stringing, would also interfere with agricultural operations. These interferences could result in a temporary decrease in agricultural productivity. As such, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Active Agricultural Operations from the Alternative 3 transmission line would be minimized such that impacts would be considered adverse, but not significant.

**CEQA Significance**

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these GPs, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

**Impact AG-4: Operation would interfere with agricultural operations.**

The Alternative 3 transmission line would cross 4.3 miles of agricultural land. Operation and maintenance of the Alternative 3 transmission line would result in the presence of a 230 kV transmission line, including transmission line structures and wire, and spur roads. The presence of these roads and structures would interfere with agricultural operations along the transmission line route.
The presence of spur roads across agricultural operations could divide farm properties, which could create an obstacle to farming that impedes access to certain fields or plots, and creates irregularly shaped fields in which it would be difficult to maneuver farm equipment. New roadways could also disrupt drainage and irrigation systems, affect the efficacy of windbreaks, fragment farms, and allow for the introduction of invasive weeds within and around disturbed areas. These interferences could also permanently decrease agricultural operations productivity. Similar to the presence of new spur roads, the 230 kV transmission line could also interfere with agricultural operations, and could permanently decrease agricultural productivity. As such, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Impacts to Active Agricultural Operations from the Alternative 3 transmission line would be minimized such that impacts would be considered adverse, but not significant.

CEQA Significance

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. With the implementation of these GPs, impacts to agricultural operations would be avoided and minimized such that impacts would be considered adverse, but not significant.

Conflict with a Williamson Act Contract (Criterion AG3)

No lands under Williamson Act contract would exist along Alternative 3. Consequently, the Alternative would not conflict with any Williamson Act contracts and no impact would occur.

Alternative 3 Impacts—Recreation

Direct and indirect effects associated with Alternative 3 are discussed below and summarized in Table 4.2.5-6 (Summary Comparison of Impacts – Recreation).

Potential impacts of Alternative 3 that could affect Developed Recreation resources and opportunities are presented below in Table 7-4. A detailed description of each impact related to recreation is presented in the text following the table.

TABLE 7-4. RECREATION IMPACTS APPLICABLE TO DEVELOPED RECREATION RESOURCES – ALTERNATIVE 3

<table>
<thead>
<tr>
<th>Milepost(s)</th>
<th>Recreational Resource</th>
<th>Potentially Applicable Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.3-25.6*</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>25.6-25.7</td>
<td>RCSD Parks System Master Plan Trail (L10 M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>25.7-27.8*</td>
<td>RCSD Parks System Master Plan Trail (L10 M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>26.8-28.9</td>
<td>RCSD Parks System Master Plan Trail (L11)</td>
<td>R-1</td>
</tr>
<tr>
<td>29.2-29.3</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>29.6-30.5*</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>30.5-30.6</td>
<td>RCSD Parks System Master Plan Trail (M2, M3)</td>
<td>R-1</td>
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<tr>
<td>30.6-32.1*</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
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<tr>
<td>32.1-32.2</td>
<td>RCSD Parks System Master Plan Trail (L9, M3)</td>
<td>R-1</td>
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<tr>
<td>32.2-32.6*</td>
<td>RCSD Parks System Master Plan Trail (M3)</td>
<td>R-1</td>
</tr>
<tr>
<td>34.6-34.7</td>
<td>LACRHT (Little Buttes)</td>
<td>R-1</td>
</tr>
<tr>
<td>36.8-37.0*</td>
<td>LACRHT (Little Buttes and California Poppy)</td>
<td>R-1</td>
</tr>
<tr>
<td>41.5-41.7*</td>
<td>LACRHT (California Poppy)</td>
<td>R-1</td>
</tr>
<tr>
<td>50.4-50.6*</td>
<td>LACRHT (North Side Trail)</td>
<td>R-1</td>
</tr>
</tbody>
</table>
### Milepost(s) | Recreational Resource | Potentially Applicable Impacts
--- | --- | ---
50.9-51.2* | LACRHT (North Side Connector Trail) | R-1
53.8-53.9 | MRCA Parkland Trail | R-1
53.9-54.2* | City of Palmdale Trail | R-1
54.7-55.0* | MRCA Parkland Trail | R-1
55.4-55.7* | MRCA Parkland Trail | R-1
55.8-55.9 | MRCA Parkland Trail | R-1
56.2-56.3 | MRCA Parkland Trail | R-1
56.3-56.5* | City of Palmdale Trail; MRCA Parkland Trail | R-1
56.6-57.0* | MRCA Parkland Trail | R-1
57.0-57.3 | Ritter Ranch (MRCA Property) | R-1, R-2
57.3-57.6* | Ritter Ranch (MRCA Property); MRCA Parkland Trail | R-1, R-2
57.6-58.0 | Ritter Ranch (MRCA Property) | R-1, R-2
59.7-59.8 | LACRHT (Vasquez Loop) | R-1
62.0-62.1 | Pacific Crest Trail | R-1, R-2, R-4
62.1-62.2 | LACRHT (Unidentified); Pacific Crest Trail | R-1, R-2, R-4
62.4-62.5 | LACRHT (Unidentified); Pacific Crest Trail | R-1, R-2, R-4
62.5-63.1* | LACRHT (Vasquez Loop) | R-1
66.3** | Rowher Flat OHV Area (Staging/Trailhead for OHV System) | R-1
66.8-66.9 | LACRHT (Unidentified) | R-1
70.1-70.2 | LACRHT (Unidentified) | R-1
70.3-70.5* | LACRHT (Unidentified) | R-1
70.8-71.1* | LACRHT (Unidentified) | R-1
71.2-71.3 | LACRHT (Unidentified) | R-1
72.1-72.3* | LACRHT (Bouquet) | R-1
74.6-75.2* | Pettinger Canyon Road (5N28) | R-1, R-2
75.2-75.5* | City Highline Motorway FR Rd (6N21) (OHV) | R-1, R-2, R-5

*adjacent to and within impact zone
**outside 1-mile study corridor

RCSD – Rosamond Community Services District
LACRHT - Los Angeles County Riding and Hiking Trail

The discussion below includes information on the direct and indirect effects of the Alternative 3 transmission line.

**Directly or indirectly disrupt or preclude activities in established federal, State, or local recreation areas (Criterion R1)**

**Impact R-1: Construction activities would restrict access to or disrupt activities within established recreational areas.**

Impact R-1 would occur for all Developed Recreation resources that would be traversed by the proposed transmission line. Recreational resources that would be crossed would not necessarily be physically impacted by the presence of the overhead transmission line, because in most cases the transmission line would span over the resource or area without any ground impact. Although it is not anticipated that recreation resources that would be crossed by the Alternative 3 transmission line would be physically impacted, such resources and areas would be restricted from use during construction activities in order to protect the safety of public recreationists and to accommodate the transport and use of equipment and activities required to construct the new transmission line. During construction activities, ground work would be required at each structure pad location as well as along select roadways between the locations, as materials to build the structures would be transported by truck to the structure sites. As a result, resources and areas crossed by the transmission line would be temporarily closed during construction activities, for only as long as required to complete activities in a given location. Recreational areas located...
in the near vicinity of the proposed route (e.g., Rowher Flat OHV Area) may also experience temporary use disruptions due to factors such as construction noise and the potential need to stage construction vehicles, equipment, or infrastructure. In addition to developed recreation resources (PCT, RCSD Parks System Master Plan trails, City of Palmdale trails, LACRHT trails, MRCA property and trails, BLM routes), dispersed recreation opportunities would also be affected due to temporary access restrictions during the construction period, as well as possible activity disruptions due to factors such as construction equipment staging and noise generated during the construction period. For example, recreational hunting permitted in Zone D-11 would be affected by Impact R-1 as a result of construction noise, traffic, and road closures, with road closures that would potentially restrict hunters from accessing certain areas of the ANF introducing the most noticeable effect.

The degree to which dispersed recreation opportunities would be affected in the ANF would depend upon which ROS designation would be affected by closures or restrictions related to the Alternative 3 transmission line construction. The type of recreational resource or opportunity available to the public largely depends upon the applicable ROS objective. In general, recreational activities within and adjacent to the Alternative 3 transmission line ROW would be temporarily suspended during construction.

Temporary access restrictions to established recreational resources or disruption of activities as a result of construction and maintenance activities would negatively affect members of the public who would otherwise use the affected recreational resources. Implementation of R-1a through R-1e, as described in Table 4.2.5-1, would reduce Impact R-1 to a less than significant level.

Alternative 3 would have the least impact of all the Alternatives on ANF recreation, both developed and dispersed. This is due to Alternative 3 crossing the least miles of NFS lands of the Alternatives.

**Environmental Effects of Specifically Recommended Mitigation Measure SRM R-1d**

While R-1d is recommended to reduce impacts to recreationists using the PCT and/or other trails, this measure may adversely affect other areas. A trail diversion could potentially disturb sensitive biological resources or damage cultural resources that may be located along the diverted route. Such potential impacts are similar to the effects of other Project activities, and would require the implementation of mitigation measures.

**CEQA Significance**

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, temporary access restrictions to established recreational resources or disruption of activities as a result of construction and maintenance activities would negatively affect members of the public who would otherwise use the affected recreational resources. Implementation of R-1a through R-1e, would reduce Impact R-1 to a less than significant level.

**Substantially contribute to the long-term loss or degradation of the factors that contribute to the value of federal, State, local, or private recreational facilities (Criterion R2)**

**Impact R-2: Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas.**

During operation and maintenance activities, it is expected that ground work would be limited to transmission structure locations and other ground-based infrastructure located along the proposed route. The use of helicopters for operation and maintenance activities is also possible. Operation and maintenance activities for transmission facilities would cause long-term negligible to minor impacts to recreation activities adjacent to the ROW. Recreational resources that are adjacent to areas where ground work is necessary would be temporarily restricted from use during such activities, thus restricting access to or resulting in the disruption of normal recreational activities within such areas.
management would require the selective removal of some trees within the long-term ROW. This activity may require occasional mechanical thinning within the ROW, temporarily limiting access and introducing noise and odors that may impact the recreation experience for users in the area.

Transmission line structures would increase raptor perch sites. This would increase the possibility of raptor presence and its role as watchable wildlife, and conversely could decrease other watchable wildlife species due to increased predation. The presence of structures would also change the physical setting and introduce a visual intrusion that could affect the recreation experience for dispersed recreation users. The presence of improved access roads to the ROWs may increase dispersed recreation (e.g., OHV) use and increase resource degradation of previously unused or little used areas.

The USFS generally does not restrict recreational use for standard utility operation/maintenance work, unless it involves a larger scale project which may endanger public safety. The level of operational and maintenance activity would not substantially increase on the ANF as the Alternative 3 transmission line would be located in an existing transmission line corridor. Implementation of GP-50 would coordinate maintenance activities with federal, State, and/or local agencies to avoid conflicts with affected recreation areas. As such impacts would be less than significant.

Impact R-2 would only marginally occur on the ANF with the Alternative 3 transmission line as the alignment would cross the fewest miles of NFS lands.

**CEQA Significance**

With implementation of GP-50 listed above, Impact R-2 on Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, would be less than significant.

**Impact R-3: Cause or contribute to degradation of the Pacific Crest National Scenic Trail.**

The Alternative 3 transmission line would include three crossings of the PCT. No structures or transmission-related infrastructure would be permanently located on or within the PCT and no permanent closure or rerouting of the PCT would result, although temporary diversions during the construction period would be required. During construction and installation of the transmission line structures, temporarily elevated noise levels would be introduced through the use of construction vehicles and machinery. Although this type of noise would be disturbing, it would be temporary and would not lead to permanent degradation of the backcountry experience enjoyed by PCT recreationists. The portion of the PCT that would be crossed would be temporarily closed during construction and the PCT would be temporarily rerouted for the safety of recreationists using the trail.

Construction activities would not result in a permanent reroute of the PCT and no permanent physical modifications to the PCT would occur as a result of Project activities. Additionally, the Project would not change the existing types of land uses and recreational opportunities along and adjacent to the PCT. Project activities that would alter the ability of recreationists to access and utilize the PCT would be temporary and of short duration. However, the recreational experience for users of the PCT would be temporarily degraded during construction activities and permanently altered due to the introduction of visual and noise features of new transmission structures. It should be noted here that visual resources and noise both contribute to the backcountry experience of the PCT. As such, the visual and noise aspects of Alternative 3 are only discussed here in terms of their contributions to recreation, not in terms of specific visual and noise impacts that would be introduced by the Project. In terms of the recreational experiences of the PCT, specifically recommended mitigation measures R-1a and R-1d would be implemented to minimize such effects.
CEQA Significance

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, implementation of the specifically recommended mitigation measures R-1a and R-1d would reduce impacts to the recreational experience of the PCT to a less than significant level.

Impact R-4: Contribute to degradation of Off-Highway Vehicle (OHV) routes or would result in a loss of recreational opportunity for OHV users.

Impact R-4 would be similar under Alternative 3 to Alternative 2. As described under Alternative 2, this impact could occur if Project activities would require that OHV roads or trails be repeatedly and frequently closed due to maintenance activities, or permanently closed or altered due to operational activities.

CEQA Significance

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, implementation of R-2 would reduce Impact R-4 to a less than significant level.

Environmental Effects of Specifically Recommended Mitigation Measure SRM R-2

While R-2 (Avoid permanent upgrades to Forest System roads) would avoid the permanent loss of OHV routes on OML 1 or 2 designated roads, this measure may adversely affect other issue areas. The activities that would be associated with returning improved roads to existing maintenance practices would require earthmoving equipment, which would increase construction noise within the ANF. Earthmoving and other equipment that may be required for this measure would also contribute to additional air quality emissions. In addition, greater land disturbance as a result of road activities would contribute to increased soil erosion, which would potentially affect water quality.

Such potential impacts are similar to the effects of other Project activities, and would require the implementation of specifically recommended mitigation measures.

CEQA Significance

Under Alternative 3, including the new 230 kV double-circuit transmission line and Project components common to all action Alternatives, implementation of R-2 would reduce Impact R-4 to a less than significant level.

Impact R-5: Facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities.

Impact R-5 would be minimal with the Alternative 3 transmission line. Impact R-5 would occur if Project activities result indirectly in an increase in unauthorized or unmanaged recreational activities. For instance, improvement of existing roads and installation of new roads could provide access to areas that were not previously accessible by roads. As a result, these new and improved roads could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes. In addition, some recreational resources may become temporarily inaccessible during construction and/or maintenance of the proposed transmission line, which could potentially result in unauthorized recreational uses, as recreationists seek alternative or comparable recreational resources to those which are made unavailable. Improvement of existing roads and construction of new access and spur roads associated with the Alternative 3 transmission line could facilitate unmanaged recreational uses, particularly OHV use, within the ANF. While the Alternative 3 transmission line presents potential
for this impact, the potential is the lowest for all the transmission line alignments due to its crossing the fewest miles of NFS lands, and no new road construction being anticipated on the ANF.

**CEQA Significance**

Under Alternative 3, including the new 230 kV double circuit transmission line and Project components common to all action Alternatives, implementation of R-2 and R-3, Impact R-5 would reduce Impact R-5 to a less than significant level.

### 7.4 NO ACTION ALTERNATIVE

Under the No Action Alternative neither the Proposed Action (Alternative 2) nor one of its rerouted or other alternatives (Alternatives 1, 2a and 3) would be implemented. Additionally, there would be no reconductoring of the existing OG-RIN 230 kV transmission line with larger conductors from the Barren Ridge Switching Station to the Rinaldi Substation. Consequently, associated impacts to land use would not occur. However, in the absence of either the Proposed Action or one of its alternatives, the purpose and need for power transmission capabilities would not be met. Under this scenario, it is possible that a similar type of transmission line project would be constructed in the future to meet the power transmission needs of developing renewable energy (wind) in the Tehachapi Wind Resource Area. Due to the type of energy resources located in the area, and the projected need for power in the greater Los Angeles area, such a project would likely traverse the same geographic regions as either the Proposed Action or Alternatives 1, 2a and 3, and subsequently introduce similar types of impacts to land use.

Environmental conditions in the Project Area would be expected to change or evolve over time, regardless of whether the Proposed Action or an alternative to the Proposed Action (including the No Action Alternative), is implemented. Therefore, the regional setting and baseline conditions which are discussed in Section 5.0 (Affected Environment) would not remain static. The following section describes how land uses in the Project area would be expected to change in the future under the No Action Alternative. The potential impacts of the Proposed Action and Alternatives 1, 2a and 3 would not occur under the No Action Alternative.

#### 7.4.1 Kern County

As described in Section 5.0, the predominant existing Kern County land uses in the vicinity of the Project area include large expanses of undeveloped open space, agriculture and scattered residential development. There are also numerous tracts of undeveloped land which are planned for future development. Under the No Action Alternative it would be expected that this region would continue to experience residential development particularly along the southern boundary of Kern County. Assuming that growth in this region continues it would be expected that agricultural lands would be converted to non-agricultural uses at a rate similar to that of development. All such development would require site-specific planning and environmental review prior to its implementation. Therefore, it is assumed that potential impacts to these agricultural resources would be identified and mitigated, as feasible and appropriate. Under this alternative there would be no corresponding conversion of Farmland or disturbance to agricultural operations and no conflicts with Williamson Act contracts would occur. Consequently, in comparison to Alternatives 1, 2, 2a and 3, there would be fewer impacts to agricultural resources under the No Action Alternative.

Under the No Action Alternative it would be expected that this region would continue to experience residential development, not only within Los Angeles County to the south (cities of Palmdale and Lancaster), but also further to the north, along the southern boundary of Kern County. Assuming that growth in this region continues, it is expected that lands which are currently used for rural residential and agricultural purposes, as well as open space/undeveloped areas, would decrease at rates similar to that of development. However, all such development would require site-specific planning (e.g., the development...
of a Specific Plan, Master Plan, or similar land use planning document) and environmental review and approval prior to its implementation. Therefore, it is assumed that potential impacts to these rural land uses would be identified and mitigated, as feasible and appropriate.

Under the No Action Alternative, existing transmission lines would continue to operate under their current conditions. Therefore, no new temporary or long-term impacts to existing and planned land uses within or adjacent to their respective ROWs would occur. However, under this alternative there would be no corresponding net loss or preclusion of rural residential uses, open space/undeveloped area, or agricultural production. Similarly, there would be no temporary land disturbances due to construction. Under this alternative, there would be no expansion of the Barren Ridge Substation.

Under the No Action Alternative it is assumed that some type of new energy-related transmission would need to be constructed in lieu of the Proposed Action or Alternatives 1, 2a and 3. However, the specific location of this new transmission line is not known; consequently, the specific land uses that would be affected by its construction and operation are not known. Due to this uncertainty, it cannot be predicted if the No Action Alternative would temporarily or permanently result in significant impacts to residential and non-residential land uses, or conflict with any applicable federal, State or local land use plans, goals, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

7.4.2 Los Angeles County

As described in Section 5.0 the predominant existing land uses in northern Los Angeles County include undeveloped open space, agriculture and residential development as well as other uses such as commercial, business and industrial development. The cities of Santa Clarita, Palmdale and Lancaster are rapidly developing urban areas which include large tracts of planned residential development. It is reasonably foreseeable that some of the residential developments will be constructed and that in the future, further development surrounding these cities will include additional recreational facilities for public use. The types of recreational resources that are reasonably foreseeable to be included as part of this ongoing development include facilities such as designated park areas and multi-use trails to connect residential areas with recreational facilities. Under the No Action Alternative it would be expected that this region would continue its rapid rate of urban and suburban development. Assuming that growth in this region continues, it would be expected that lands which are currently used for agricultural production would be converted to non-agricultural uses. However, as all such development would require site-specific planning (e.g., the development of a Specific Plan, Master Plan, or similar land use planning document) and environmental review prior to its implementation, it is assumed that potential impacts to agricultural resources would be identified and mitigated, as feasible and appropriate.

Under the No Action Alternative, existing transmission lines would continue to operate under their current conditions. Therefore, no new temporary or long-term impacts to existing and planned land uses within or adjacent to their respective ROWs would occur. The No Action Alternative would result in no impacts to agricultural resources. In comparison to Alternatives 1, 2, 2a and 3, there would be fewer impacts to agricultural resources under this alternative. The proposed Haskell Canyon Switching Station also would not be constructed under this alternative.

Northern Los Angeles County is characterized by mountainous regions, including the ANF, and areas of urban land. Little agricultural land exists in these portions of Los Angeles County, so there is little potential for future projects in this area to result in substantial impacts to agricultural resources. As outlined in Section 5.0, the Project area is located within the ANF, on BLM administered lands, and on private lands. A large proportion of these lands are made-up of undeveloped lands used for recreation and natural resource management. A portion of the PCT is also located within the ANF. Under the No Action alternative, the existing management practices and plans of the USDA Forest Service would be anticipated to be maintained, and no substantial changes to the ANF’s or BLM’s existing land use zones, Places, or special designation areas would be expected to occur.
Under this alternative, no construction related activities that would temporarily preclude or restrict existing uses of ANF, BLM administered lands or private lands would occur, including short-term disturbances to residential areas and special use facilities. However, under the No Action Alternative, it is assumed that some type of additional transmission line to serve the greater Los Angeles area would need to be constructed. Because the location of this new transmission line is not known, it cannot be predicted if it would directly or indirectly result in significant impacts to residential and non-residential land uses. It is also not possible to predict if it would require the permanent loss of existing or planned land uses due to new or expanded ROW and associated substation facilities. Consequently, it cannot be predicted if it would result in significant permanent impacts to residential and non-residential land uses or conflict with any applicable federal, State or local land use plans, goals, policies or regulations.

Under the No Action Alternative, it is assumed that some type of new energy-related transmission would need to be constructed in lieu of the Proposed Action or Alternatives 1, 2a and 3. If this transmission line were to traverse the ANF and BLM administered lands, a new Special Use Authorization or other approvals would still be required; however, because the specifics of this new transmission line are not known, it cannot be predicted if there would be a potential conflict (or conflicts) with the ANF or BLM’s land Management Plans.

The majority of the southern Project area is made up of a complex mix of intensively developed urban uses. Exceptions to this development are open space/undeveloped areas that fringe developed areas; typically they serve as either open space/recreational areas and “green belts.” Under the No Action Alternative the intensity of existing development would be expected to either remain the same, or expand into areas that are currently undeveloped. Substantial new development, particularly as related to residential uses and associated commercial and services and business uses, would be expected to occur in the vicinity of the cities of Santa Clarita, San Fernando and Los Angeles. This new development would likely encroach on lands that are currently used for agricultural purposes or lands which are currently undeveloped.

Under the No Action Alternative the addition of a new 230 kV circuit between the proposed Haskell Canyon Switching Station and the existing Castaic Power Plant would not occur. Consequently, no construction-related activities that could temporarily preclude, restrict, or otherwise disturb existing or permitted (future) land uses would occur.

Under the No Action Alternative it is assumed that if either the Proposed Action or Alternatives 1, 2a and 3 are not implemented, some type of replacement (e.g., new) transmission line would be required to serve the greater Los Angeles area. However, because the location and design specifics of this new transmission line are not known, it cannot be predicted if it would significantly impact, directly or indirectly, residential and non-residential land uses, either temporarily or permanently. Similarly, because the new transmission line ROW and its related facilities are not known, it cannot be predicted if it would conflict with any applicable federal, State or local land use plans, goals, policies or regulations.

### 7.5 CUMULATIVE EFFECTS

#### 7.5.1 Introduction

Cumulative effects are those effects that result from incremental impacts of the proposed action when added to other past, present and reasonably foreseeable future actions. Analysis of cumulative effects places project-specific impacts into a broader context that takes into account the full range of impacts of actions taking place over a given space and time. Cumulative effects may be considered a significant impact to the environment, as degradation of important resources may result from the combined, incremental effects of actions. Cumulative effects may result from individually minor or insignificant
actions, which collectively may be considered significant as they accumulate over time and space from one or more actions or sources.

7.5.2 **Cumulative Projects List – Major Present and Reasonably Foreseeable Future Actions**

The cumulative projects list is used to provide a general context for the cumulative effects. This list includes present and reasonably foreseeable future actions in the Project vicinity that have the potential to combine with the Proposed Action or Alternatives. While a distinct impact area for cumulative impacts and specific present and reasonably foreseeable actions is determined individually for each resource area, collectively, the projects listed below represent the major known and anticipated activities that may occur in the general Project area. The Cumulative Projects Map (Figure xx-1) illustrates the location of energy infrastructure and other major projects in reference to the Proposed Action and Alternatives.

As the project list comprises projects in various stages of planning and development, it is likely that some of these projects would be completed as currently proposed while others would not. To be conservative, the cumulative analysis assumes that all projects listed would be built and in operation during the operating lifetime of the proposed Project. The list was developed in consultation with the following agencies:

- USFS – Angeles National Forest (ANF)
- BLM – Ridgecrest Field Office
- BLM – Palm Springs Field Office
- United States Air Force – Edwards Air Force Base
- Kern County – Planning Department
- Los Angeles County – Department of Regional Planning
- City of California City
- City of Lancaster
- City of Palmdale
- City of Santa Clarita
- City of Los Angeles
- City of San Fernando
- LADWP
Energy Infrastructure Projects

Transmission Projects

Antelope Transmission Project – Construction of Southern California Edison’s (SCE) proposed Antelope Transmission Project is underway and is proceeding in three sequential segments. Construction of Segments 1, 2 and 3A have been completed. Construction of Segment 3B, from Windhub Substation to and including Highwind Substation, has not started and no schedule has been developed by SCE (California Public Utilities – Current Projects).

Segment 1, Antelope – Pardee 500 kV Transmission Line, involved the construction of a new 25.6-mile transmission line between SCE’s existing Antelope Substation in the city of Lancaster and SCE’s existing Pardee Substation in Santa Clarita, with modifications to and/or expansion of the substations. The line was constructed in an existing SCE 66 kV transmission line right-of-way (ROW) for 23 miles, and within a new ROW for 18 miles. The line is initially energized to 220 kV to serve existing energy demand and can be upgraded to 500 kV to accommodate future needs.

Segment 2, Antelope – Vincent 500 kV Transmission Line, consists of a new 17.8 mile transmission line between the Antelope Substation and SCE’s existing Vincent Substation near Acton. Similar to Segment 1, the line would initially be energized at 220 kV and upgraded to meet future needs.

Segment 3, Antelope – Tehachapi Transmission Line, consists of two phases. The first phase, 3A, would involve the construction of a new 26.1-mile 500 kV transmission line between the Antelope Substation and a proposed new substation in the vicinity of the unincorporated community of Mojave (Substation 1). Similar to Segments 1 and 2, this line would be initially energized at 220 kV and upgraded to meet future needs. The second phase, 3B, would involve the construction of a new 9.4-mile 220 kV transmission line from the proposed Substation 1 to a proposed new substation in the Monolith area (Substation 2).

Tehachapi Renewable Transmission Project (TRTP) – SCE is proposing to construct the TRTP, which would involve new and upgraded transmission infrastructure along 173 miles of new and existing rights-of-way, in southern Kern County, portions of Los Angeles County including the ANF, and the southwestern portion of San Bernardino County. Stated objectives for the project include providing the electrical facilities necessary to integrate levels of wind generation in excess of 700 MW and up to 4,500 MW in the Tehachapi Wind Resource Area (California Public Utilities – Current Projects).

The environmental review process for the project is currently underway. Construction began in April 2010 on approved sections. Project construction is estimated to be completed in 2015.

The project is composed of Segments 4 through 11, with Segments 4 through 8 and Segments 10 and 11 being transmission facilities, and Segment 9 being the addition and upgrade of substation facilities. Proposed transmission lines would be constructed primarily within existing rights-of-way. Major project components include:

- Constructing two new single-circuit 220 kV transmission lines within 4 miles of new ROW between the Cottonwood Substation and proposed Whirlwind Substation (Segment 4);
- Constructing a new single-circuit 500 kV transmission line within 16 miles of new ROW between the Antelope Substation and proposed Whirlwind Substation (Segment 4);
- Rebuilding 18 miles of the existing Antelope – Vincent and Antelope – Mesa 220 kV transmission lines to 500 kV standards within existing ROW between the Antelope and Vincent Substations (Segment 5);
- Rebuilding 27 miles of the existing Antelope – Mesa 220 kV transmission line and 5 miles of the existing Rio Hondo – Vincent 220 kV transmission line to 500 kV standards between the Vincent Substation and the southern boundary of the ANF (Segment 6);
• Rebuilding 16 miles of the existing Antelope – Mesa 220 kV transmission line to 500 kV standards between the southern boundary of the ANF and Mesa Substation (Segment 7);
• Rebuilding 33 miles of the existing Chino – Mesa 200 kV transmission line to 500 kV standards between a point 2 miles east of the Mesa Substation and the Mira Loma Substation (Segment 8);
• Rebuilding 7 miles of the existing Chino – Mira Loma No. 1 220 kV transmission line from single-circuit to double-circuit structures (Segment 8);
• Constructing a new 500/220 kV Whirlwind Substation 4 to 5 miles south of the Cottonwood Substation (Segment 9);
• Upgrading the existing Antelope, Vincent, Mesa, Gould, and Mira Loma Substations to accommodate new transmission line construction and system compensation elements (Segment 9);
• Constructing a new single-circuit 500 kV transmission line within 17 miles of new ROW between the Windhub Substation and proposed Whirlwind Substation (Segment 10);
• Rebuilding 19 miles of existing 220 kV transmission line to 500 kV standards in existing ROW between the Vincent and Gould Substations (Segment 11);
• Adding a new 220 kV circuit between the Mesa and Gould Substations on the vacant side of the existing Eagle Rock – Mesa 220 kV transmission line double circuit structures (Segment 11); and
• Installing associated telecommunications infrastructure.

Generation Projects
Numerous wind and solar generation projects are in various stages of planning and development within the Project vicinity. Projects considered include the projects currently undergoing environmental review or projects that have been recently approved. Table 7-5 below summarizes the major known projects and their current status as of April 2011 (County of Kern Environmental Documents and AV Solar Ranch One).

**Table 7-5. Proposed Generation Projects in the Project Vicinity**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Type</th>
<th>Approximate Generation</th>
<th>Area (acres)</th>
<th>Location</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alta East Wind Project</td>
<td>Wind</td>
<td>300 MW</td>
<td>3,660</td>
<td>Kern County</td>
<td>Application to Kern County deemed complete on Aug. 2010</td>
</tr>
<tr>
<td>Alta Wind Energy Center: Alta-Oak Creek Mojave Project</td>
<td>Wind Turbine</td>
<td>800 MW</td>
<td>9,175</td>
<td>Kern County</td>
<td>Approved by Kern County Dec. 2009</td>
</tr>
<tr>
<td>Antelope Valley Solar Project</td>
<td>Solar Photovoltaic</td>
<td>650 MW</td>
<td>5,698</td>
<td>Kern County</td>
<td>Draft EIR released April 2011</td>
</tr>
<tr>
<td>AV Solar Ranch One</td>
<td>Solar Photovoltaic</td>
<td>230 MW</td>
<td>21,000</td>
<td>Los Angeles County</td>
<td>Final EIR completed Aug. 2010</td>
</tr>
<tr>
<td>Avalon Wind Project</td>
<td>Wind</td>
<td>255 MW</td>
<td>10,000</td>
<td>Kern County</td>
<td>Application to Kern County deemed complete on July 2010</td>
</tr>
<tr>
<td>Beacon Solar Energy Project</td>
<td>Concentrated Solar</td>
<td>250 MW</td>
<td>2,012</td>
<td>Kern County</td>
<td>Application for Certification approved Aug. 2010</td>
</tr>
<tr>
<td>Clearvista Wind Project</td>
<td>Wind Turbine</td>
<td>40 MW</td>
<td>226</td>
<td>Kern County</td>
<td>Draft EIR released Nov. 2010</td>
</tr>
</tbody>
</table>
There are also plans in various stages of development to establish additional wind and solar energy projects on BLM land in the Project vicinity. The submission of an application to BLM is a preliminary step in the project planning process, but not all applications ultimately result in successful project development. Below is a list of current applications for wind and solar energy generation projects in the Project vicinity submitted to BLM’s Ridgecrest Field Office as of February 2010 (U.S. Department of the Interior, Bureau of Land Management – Renewable Energy).

**TABLE 7-6. BLM RIDGECREST OFFICE APPLICATIONS FOR WIND AND SOLAR ENERGY GENERATION PROJECTS IN THE PROJECT VICINITY.**

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Applicant</th>
<th>Date Application Received, ROW Grant Issued, Last Amended Date</th>
<th>Approximate Area (Acres)</th>
<th>Project Type</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CACA 46978</td>
<td>Sean Roberts, Renewable Land LLC</td>
<td>7/1/04</td>
<td>528</td>
<td>Pending Wind</td>
<td>Mojave</td>
</tr>
<tr>
<td>CACA 47848</td>
<td>Oak Creek Energy</td>
<td>1/11/06</td>
<td>7,349</td>
<td>Pending Wind</td>
<td>Lucchese</td>
</tr>
<tr>
<td>CACA 48536</td>
<td>Oak Creek Energy</td>
<td>7/25/06</td>
<td>1,800</td>
<td>Pending Wind</td>
<td>Soledad Mountain Wind Project</td>
</tr>
</tbody>
</table>
Other Major Projects

Transportation and Public Facilities

California High Speed Rail – This project proposes a ±700-mile high speed rail line from Sacramento to San Diego. The Statewide Programmatic EIS/EIR was completed in 2005, and the Bay Area to Central Valley High-Speed Train Program EIS/EIR was completed in 2008. Multiple second-tier project-level environmental documents (with preliminary engineering design) are currently underway (California High Speed Rail Authority).

Pacific Pipeline Storm Relocation Project and Access Road Repairs – Pacific Pipeline is proposing to relocate several miles of crude oil pipeline to more stable ground within the ANF. Project implementation was expected in November 2010 (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

Antelope Valley Water Bank Project – This project proposes to develop facilities to store and recharge imported surface water and associated delivery and distribution pipelines. The 13,440-acre facility area would be bounded by the Kern/Los Angeles County border line (also known as Avenue A) to the south and Rosamond Boulevard to the north, and between 170th Street West and 100th Street West in unincorporated Kern County (U.S. Department of the Interior, Bureau of Reclamation – Mid-Pacific Region).

Soledad Canyon Cemex Project – The Soledad Canyon Cemex project would be a 56-million-ton sand and gravel mining project in the Soledad Canyon area. The BLM approved the project with mitigating measures in 2000, and the Interior Board of Land Appeals affirmed that decision in 2002. A City of Santa Clarita challenge to the US Supreme Court was denied in 2006. This project is pending development with ongoing challenges and delays (Cemex United States).

Community Development

Centennial, California – The proposed project site consists of 12,000 acres located one mile east of Interstate 5 (I-5) and adjacent to State Highway 138 in Los Angeles County. The project would include a specific plan and subdivision entitlements (i.e., tract maps and conditional use permits) for a master planned community. The specific plan proposes a maximum of 23,000 dwelling units and 14 million total square feet of non-residential development of employment areas (12,233,390 square feet) and retail serving centers (1,986,336 square feet), anticipated to be built over approximately 20 years, with build-out expected in 2030. If the project is approved by Los Angeles County, it is estimated that the non-residential development may generate approximately 31,000 jobs. The draft Specific Plan for the

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Applicant</th>
<th>Date Application Received, ROW Grant Issued, Last Amended Date</th>
<th>Approximate Area (Acres)</th>
<th>Project Type</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CACA 48820</td>
<td>First Solar (Formally OptiSolar Inc.)</td>
<td>12/13/08</td>
<td>5,760</td>
<td>Pending Solar</td>
<td>Mojave Area</td>
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<tr>
<td>CACA 49577</td>
<td>Power Partners SW (enXco)</td>
<td>8/10/07</td>
<td>1,816</td>
<td>Pending Wind</td>
<td>Soledad Area</td>
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<tr>
<td>CACA 50171</td>
<td>AES SEAWEST INC</td>
<td>7/3/09</td>
<td>120</td>
<td>Pending Wind</td>
<td>Kern County</td>
</tr>
<tr>
<td>CACA 50768</td>
<td>Riverside Wind Energy LLC</td>
<td>4/20/09</td>
<td>480</td>
<td>Pending Wind</td>
<td>Gorman</td>
</tr>
<tr>
<td>CACA 51016</td>
<td>Advanced Dev Services, Inc</td>
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<tr>
<td>CACA 51335</td>
<td>Alta Windpower Dev., LLC</td>
<td>7/13/09</td>
<td>584</td>
<td>Pending Wind</td>
<td>Kern County</td>
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<td>CACA 51561</td>
<td>Power Partners Southwest</td>
<td>12/11/09</td>
<td>1,160</td>
<td>Pending Wind</td>
<td>Kern County</td>
</tr>
</tbody>
</table>
unincorporated community of Centennial was submitted to Los Angeles County in February 2003 and is currently being reviewed by the county (Centennial, California).

Maintenance and Landscape Management Projects

Bouquet Canyon Road Realignment – Los Angeles County Department of Public Works is proposing to straighten some sections of Bouquet Canyon Road and to raise the road surface by approximately nine feet. A Memorandum of Understanding between ANF and Los Angeles County is currently under development to initiate the project (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

San Francisquito Road Rehabilitation and Sediment Disposal Site – Los Angeles County Department of Public Works is proposing a road realignment and new bridge along San Francisquito Road within the ANF and to use eight acres of Forest land as a spoils site in support of construction activities. Public Scoping began in June 2007, and a decision was expected in September 2010 (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

Old Ridge Route Storm Damage Repair – USFS is proposing to repair and provide maintenance to seven storm-damaged locations along the Old Ridge Route in ANF. A decision on the project is expected in late 2010 (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

Livestock Grazing Allotments – BLM currently authorizes both cattle and sheep grazing on 11 grazing allotments in and around the project area. The livestock are authorized with 10 year permits/leases and yearly authorizations. These allotments encompass over one half million acres of BLM-managed lands. The number of livestock grazed each year depends upon weather conditions. The majority of the livestock are sheep. The number of sheep average around thirty thousand head. Three of the allotments support several thousand head of cattle (Harris 2010).

Tule Ridge/South Portal Fuels Reduction Project – USFS proposes fuels reduction and re-establishment of a fuel break to provide protection to unincorporated community of Green Valley. The project would also enhance wildlife for mammals and birds (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

Jupiter Fuelbreak Project – USFS proposes to re-establish an existing fuel break that begins southwest of the unincorporated community of Green Valley and travels east, bisecting Jupiter Mountain, before heading south to Bouquet Reservoir.

Santa Clar/Mojave River Rangers District Plantation Maintenance Project – The proposed project would consist of vegetation maintenance at 13 plantations located within the ANF in order to reduce wildfire risk, and improve wildlife habitat and the vitality of individual remaining trees. Proposed actions include removal of dead trees, thinning of live trees, pruning, removing weeds, and planting for reforestation where necessary. This action was approved by the District Ranger in January 2010 (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

Lake Hughes Plantation Restoration Project – The proposed project would restore unauthorized off-highway vehicle trails at the Christian and Taylor Plantations located within the ANF in order to reduce soil erosion, the spread of weeds, destruction of native plants, soil compaction, and wildlife habitat loss. Proposed actions include recontouring and decompacting soils, reseeding with native species, and reinforcing check dams. The project was approved by the District Ranger in 2009 and scheduled for implementation in January 2010 (Forest Service Schedule of Proposed Actions for the Angeles National Forest).
Bouquet and San Francisquito Habitat Improvement Project – The project proposes invasive species removal in Bouquet and San Francisquito Canyons (Forest Service Schedule of Proposed Actions for the Angeles National Forest).

Local Projects

In conjunction with the major projects listed above, a summary of local foreseeable projects within the study area that could contribute to cumulative effects are summarized in the table below. These proposed projects were gathered from applications to the planning departments of the various jurisdictions and have been categorized by project type.

**TABLE 7-7. PROPOSED LOCAL PROJECTS IN THE PROJECT VICINITY.**

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Kern County</th>
<th>Los Angeles County</th>
<th>City of California City</th>
<th>City of Palmdale</th>
<th>City of Lancaster</th>
<th>City of Santa Clarita</th>
<th>City of Los Angeles</th>
<th>City of San Fernando</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Residential (may include multiple units)</td>
<td>1</td>
<td>96</td>
<td>0</td>
<td>14</td>
<td>93</td>
<td>10</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Multi Family Residential (may include multiple units)</td>
<td>28</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Schools</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Religious Uses</td>
<td>10</td>
<td>7</td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Recreational Facilities</td>
<td>7</td>
<td>5</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Public Facilities – police, fire, library, correctional</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Commercial/Office Development</td>
<td>40</td>
<td>33</td>
<td>0</td>
<td>96</td>
<td>6</td>
<td>21</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Hotels/Motels</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Medical/Care Facilities</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Industrial Facilities</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>17</td>
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<td>2</td>
</tr>
<tr>
<td>Mining Operations</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>4</td>
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<tr>
<td>RV Facilities</td>
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<tr>
<td>Animal Facilities</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Aviation Facilities</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-Commercial Energy Facilities</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

1 Projects listed for Los Angeles County include all projects that could contribute to cumulative effects within the following County Districts: Antelope Valley West, Bouquet Canyon, Castaic Canyon, Chatsworth, Lancaster, Leona Valley, Mount Gleason, Newhall, North Palmdale, Palmdale, Quartz Hill, Sand Canyon, Soledad. Some identified projects included may be outside of the study area.

2 Projects listed for the City of Palmdale include all projects that could contribute to cumulative effects within the City. Some identified projects included may be outside of the study area.

**7.5.3 Land Use**

Introduction

In considering cumulative effects on land uses, while one project may not significantly affect land use, the cumulative effect of numerous smaller projects may. Projects often employ mitigation measures to reduce impacts. A proposed project should be examined within the scope of the existing setting and the examination should take into account new and planned similar and nearby projects.

Impact Area

Land uses directly affected by Alternatives 1 though 3 would include those which are located either adjacent to the Alternative study corridors or currently sited in one of the new or expanded switching station sites (Haskell Canyon and Barren Ridge, respectively). Some land uses situated along temporary access roads may experience indirect effects. The cumulative impacts analysis, as it relates to affected land uses by other past or reasonably foreseeable future actions, is located within a geographic area of
one-half mile of the Alternative corridors. This is consistent with the spatial parameters set for the land use impact area that was used to inventory the existing and planned land uses (please refer to the Land Use environmental setting described in Chapter 3 of this Draft EIS/EIR).

Alternatives 1, 2 and 3 can be characterized by large expanses of undeveloped open space and agriculture with scattered residential development. Numerous land divisions, including subdivisions, are present in the Kern County portion of the impact area. Many of these land divisions were speculative and occurred in the early 1960s. In the Los Angeles County portion of the impact area, several large tracts of undeveloped land have been planned for future development. Specific development sites include the rapidly growing city of Santa Clarita, which has recently experienced residential, commercial, and business development. Alternative 2a is generally characterized by the same land uses as Alternative 2 with the exception of a seven-mile area on USFS lands in the ANF. In this seven-mile area, management focus is on open space protection and boundary management in anticipation of future adjacent development.

Any past project or activity that would preclude the use, or disturb or diminish the function, of a particular land use within one-half mile of the Alternative corridors would contribute to the cumulative condition of the impact area.

Reasonably Foreseeable Future Actions

The land use cumulative effects analysis utilized a list of present and reasonable foreseeable projects within one-half mile radius of each Alternative. The Cumulative Projects Map (Figure 7-4) illustrates the locations of the major cumulative projects in the BRRTP area. The list of projects includes: 1) Electricity Transmission Projects; 2) Power Generation Projects; 3) Transportation and Public Facilities Projects; 4) Community Development Projects; 5) Recreation Projects; 6) Maintenance/Landscaping Projects; and 7) Local Development Projects. Any proposed or future project that would potentially preclude the use of, disturb, or diminish the function of a particular land use within this impact area may contribute to a cumulative effect.

Residential development includes large-scale projects that are existing (Ritter Ranch Specific Plan) or planned (Centennial Specific Plan and North Lake Specific Plan). Planned and reasonably foreseeable projects also occur on USFS lands, which include the Santa Clara/Mojave Rivers District of the ANF. However, no specific projects have been identified that would contribute to a cumulative impact on residential or non-residential land uses. These projects on USFS lands may potentially preclude the use of, disturb, or diminish the function of a particular land use and may contribute to a cumulative effect.

Additionally, relevant planning and environmental documents were considered when identifying activities that could potentially contribute to cumulative land use impacts. These documents guide the location and types of development in the context of long-term physical development.

Cumulative Effects Evaluation

Land use impacts associated with each Alternative would result from: a preclusion, disruption, or division of planned and permitted land uses; short- or long-term conflicts with surrounding land uses; or inconsistencies with federal, State or local land use policies or regulations. Potential land use impacts that would arise from either construction, operational or maintenance activities would be cumulatively considerable if they combined with similar effects of other projects.

Alternative 1

Impact LU-1 (Construction, operation or maintenance of the Project would conflict with applicable federal, State or local land use plans, goals, or policies) would not contribute to a cumulatively considerable effect. With the exception of the Project crossing a Back Country Non Motorized (BCNM)
land use zone, Alternative 1 would be consistent with USFS and BLM land use policies as well as local land use plans and policies as they relate to transmission lines and associated facilities. Authorization by the USFS through its permitting and ANF Land Management Plan amendment process, along with the BLM’s granting/authorization of a ROW, would be required prior to construction.

In addition, general plans for local agencies have been adopted to govern the allowable uses and development in the vicinity of Alternative 1. As discussed above, there are numerous reasonably foreseeable projects in the area surrounding Alternative 1. Each new development proposed within the area would be subject to the land use controls and development standards in effect at the time of project submittal. Furthermore, most individual projects would be subject to their own environmental review and would be conditioned to incorporate mitigation measures to reduce potential impacts, to the extent feasible. Compliance with the applicable land use controls and development standards would ensure that most potential land use impacts would remain less than significant.

Furthermore, implementation of GP-50 would require LADWP to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies would occur. Therefore, impacts related to potential conflicts with applicable land use plans, goals, or policies would be less than significant.

Impact LU-2 (Construction of the Project would temporarily disrupt, displace or preclude existing residential land uses) and Impact LU-3 (Construction of the Project would temporarily disrupt, displace or preclude existing non-residential land uses) would not contribute to a cumulatively considerable effect. Residential, commercial, and public facility/utility developments have been proposed or are currently under construction adjacent to and/or would be traversed by Alternative 1. As previously discussed in Chapter 4, Section 4.2.3 Land Use, construction activities could cause direct effects on existing residential and non-residential land uses within approximately 1,000 feet of a construction site. Project construction occurring at the same time as Alternative 1 and affecting residential or non-residential land uses within 1,000 feet of Alternative 1 is unknown.

Construction of the proposed Project, however, would likely occur during the year 2012. A definitive construction schedule is not currently available for all of the planned/proposed residential and commercial/public facility projects listed in Table 7.1-3 in Appendix A. It is assumed, however, that construction of some of these projects would overlap with construction of Alternative 1. The construction of multiple projects within the same area could create a potentially significant impact to adjacent residential and non-residential land uses in the form of noise, dust, traffic and general neighborhood disruption as a result of heavy construction equipment and moving building materials to and from construction staging areas. Also, commercial land uses would be impacted if access to a business was affected or precluded during construction activities from the projects occurring simultaneously in close proximity to Alternative 1.

The proposed Project would be designed and constructed such that transmission structures would be located to maximize avoidance of sensitive land uses. In addition, GPs (refer to Chapter 2 of the EIS/EIR) and mitigation measures (refer to Chapter 4 of the EIS/EIR) that would reduce noise, traffic, and air quality impacts would be implemented, but these measures would not eliminate the disturbance to land use. While this disturbance would be short-term and temporary, given the existing cumulative land use impact that would occur from the construction of multiple projects, the impact would be significant if construction is not carefully managed and area users kept informed. Implementation of GP-50 and GP-59 would cause the Alternative 1 contribution to this impact to be less than cumulatively considerable, because affected property and business owners would be informed of potential disturbances.

Impact LU-4 (Operation and maintenance of the Project would cause long-term disruption of existing and planned residential land uses) would create an incremental effect that is cumulatively considerable. Portions of Alternative 1 would be constructed within the development boundaries of the approved
Mojave and Willow Springs Specific Plans. Alternative 1 would also abut existing residential properties in Los Angeles County. The proposed PDV Wind Energy Project would occupy land within the Willow Springs Specific Plan area, which may preclude future residential development. Construction of both Segment 3 of the proposed Antelope Transmission Project and Segments 4 and 10 of the TRTP would cross or generally parallel Alternative 1 in Kern County. However, prior to the construction of transmission projects, regulatory approvals and the rights to construct and operate the projects with affected private property owners would need to be obtained. Given that the utilities would secure new ROWs with existing property owners, the Alternative 1 incremental contribution to the cumulative impact would be less than significant.

Impact LU-5 (Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses) would create an incremental effect that is cumulative in nature. Non-residential land uses within one-half mile of Alternative 1 would include utilities, resource management, transportation, and light industrial uses as discussed in Section 5.0. These land uses are under the jurisdiction of federal and agencies that include the California Department of Water Resources (DWR), California Department of Parks and Recreation, California Department of Transportation, USFS, BLM, and Department of Defense (DoD). Local jurisdictions would also be traversed by Alternative 1.

As described above for Impact LU-4, energy projects have been proposed within one-half mile of the proposed Project. The Alta-Oak Creek Mojave Wind Energy Project may conflict with existing or proposed non-residential land uses in Kern County. The impacts of these projects in combination with Alternative 1 would result in a potentially significant cumulative effect on non-residential land uses. However, GP-50 would reduce the incremental effect of Alternative 1. This practice would allow the affected agencies to address and reconcile any future potential conflicts that Alternative 1 may pose to the management and use of non-residential lands. With implementation of GP-50, the Alternative 1 cumulative impact would be less than significant.

Alternative 2

Impact LU-1 (Construction, operation or maintenance of the Project would conflict with applicable federal, State or local land use plans, goals, or policies) would not contribute to a cumulatively considerable effect. Alternative 2 would be consistent with USFS and BLM land use policies as well as local land use plans and policies as they relate to transmission lines and associated facilities. Authorization by the USFS through its permitting and ANF Land Management Plan amendment process, along with the BLM’s granting/authorization of a ROW, would be required prior to construction.

In addition, general plans for local agencies have been adopted to govern the allowable uses and development in the vicinity of the Alternative 2 area. As discussed, there are numerous projects proposed or under development in the area surrounding Alternative 2. Each new development proposed within the area would be subject to the land use controls and development standards in effect at the time of project submittal. Furthermore, most individual projects would be subject to their own environmental review and would be conditioned to incorporate mitigation measures to reduce potential impacts, to the extent feasible. Compliance with the applicable land use controls and development standards would ensure that most potential land use impacts would remain less than significant.

Furthermore, implementation of GP-50 would require LADWP to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies would occur. Therefore, impacts related to potential conflicts with applicable land use plans, goals, or policies would be less than significant.

Impact LU-2 (Construction of the Project would temporarily disrupt, displace or preclude existing residential land uses) and Impact LU-3 (Construction of the Project would temporarily disrupt, displace or preclude existing non-residential land uses) would not contribute to a cumulatively considerable effect. Residential, commercial, and public facility/utility developments have been proposed or are currently
under construction adjacent to and/or would be traversed by Alternative 2. Project construction occurring at the same time as Alternative 2 and affecting residential or non-residential land uses within 1,000 feet of Alternative 2 is unknown.

Construction of the proposed Project, however, would likely occur during the year 2012. A definitive construction schedule is not currently available for all of the planned/proposed residential and commercial/public facility projects listed in Table 7.1-3 of Appendix A. It is assumed, however, that construction of some of these projects would overlap with construction of Alternative 2. The construction of multiple projects within the same area could create a potentially significant impact to adjacent residential and non-residential land uses in the form of noise, dust, traffic and general neighborhood disruption as a result of heavy construction equipment and moving building materials to and from construction staging areas. Also, commercial land uses would be impacted if access to a business was affected or precluded during construction activities from the projects occurring simultaneously in close proximity to Alternative 2.

The proposed Project would be designed and constructed such that transmission structures would be located to maximize avoidance of sensitive land uses. In addition, GPs (refer to the EIS/EIR, Chapter 2) and mitigation measures (refer to the EIS/EIR, Chapter 4) that would reduce noise, traffic, and air quality impacts would be implemented, but these measures would not eliminate the disturbance to land use. While this disturbance would be short-term and temporary, given the existing cumulative land use impact that would occur from the construction of multiple projects, the impact would be significant if construction is not carefully managed and area users kept informed. Implementation of GP-50 and GP-59 would cause the Alternative 2 contribution to this impact to be less than cumulatively considerable, because affected property and business owners would be informed of potential disturbances.

Impact LU-4 (Operation and maintenance of the Project would cause long-term disruption of existing and planned residential land uses) would create an incremental effect that is cumulatively considerable. Portions of Alternative 2 would be constructed within the development boundaries of the approved Mojave, Soledad Mountain-Elephant Butte, and Willow Springs Specific Plans. Alternative 2 would also abut existing residential properties in Los Angeles County. The proposed Alta-Oak Creek Mojave Wind Energy Project would occupy land within the Soledad Mountain-Elephant Butte Specific Plan area, which may preclude future residential development. Segment 3 of the proposed Antelope Transmission Project would be constructed generally parallel to Alternative 2, southwest of the Willow Springs area. However, prior to the construction of transmission projects, regulatory approvals and the rights to construct and operate the projects with affected private property owners would need to be obtained. Given that the utilities would secure new ROWs with existing property owners, incremental contribution to the cumulative impact associated with Alternative 2 would be less than significant.

Impact LU-5 (Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses) would create an incremental effect that is cumulative in nature. Non-residential land uses within one-half mile of Alternative 2 would include utilities, resource management, transportation, and light industrial uses as discussed in Section 5.0. These land uses are under the jurisdiction of federal and State agencies that include the California DWR, California Department of Parks and Recreation, California Department of Transportation, USFS, BLM, and DoD. Local jurisdictions would also be traversed by Alternative 2. As described above for Impact LU-4, energy projects have been proposed within one-half mile of Alternative 2. The Alta-Oak Creek Mojave Wind Energy Project may conflict with existing or proposed non-residential land uses in Kern County. The impacts of these projects in combination with Alternative 2 would result in a potentially significant cumulative effect on non-residential land uses. However, GP-50 would reduce the incremental effect of Alternative 2. This practice would allow the affected agencies to address and reconcile any future potential conflicts that Alternative 2 may pose to the management and use of non-residential lands. With implementation of GP-50, cumulative impacts associated with Alternative 2 would be less than significant.
**Alternative 2a**

Impact LU-1 (*Construction, operation or maintenance of the Project would conflict with applicable federal, State or local land use plans, goals, or policies*): Alternative 2a traverses the following land use zones designated in the ANF Land Management Plan (LMP); Back Country Non-Motorized (BCNM) and Back Country (BC). Development of facilities, roads, and major utility corridors in the BCNM land use zone would be inconsistent with the LMP.

Impact LU-3 (*Construction of the Project would temporarily disrupt, displace or preclude existing non-residential land uses*) would be the same for Alternative 2a as for the Proposed Action, and would not contribute to a cumulatively considerable effect. With implementation of GP-21, GP-34, GP-37, and GP-50, as well as pre-construction and construction phase measures provided in the Air Quality and Climate Change and Traffic and Transportation Technical Reports, construction-related impacts to non-residential land uses would be less than cumulatively considerable for Alternative 2a. With implementation of these measures, cumulative impacts associated with Alternative 2a would be less than significant.

Impact LU-5 (*Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses*) would be the same for Alternative 2a as for the Proposed Action, and would create an incremental effect that is cumulative in nature. With implementation of GP-50, as well as pre-construction and construction phase measures provided in the Air Quality and Climate Change and Traffic and Transportation Technical Reports, Alternative 2a cumulative impacts would be less than significant.

**Alternative 3**

Impact LU-1 (*Construction, operation or maintenance of the Project would conflict with applicable federal, State or local land use plans, goals, or policies*) would not contribute to a cumulatively considerable effect. Alternative 3 would be consistent with USFS and BLM land use policies as well as local land use plans and policies as they relate to transmission lines and associated facilities. Authorization by the USFS through its permitting and ANF Land Management Plan amendment process, along with the BLM’s granting/authorization of a ROW, would be required prior to construction.

In addition, general plans for local agencies have been adopted to govern the allowable uses and development in the vicinity of Alternative 3. As discussed, there are numerous projects proposed or under development in the area surrounding Alternative 3. Each new development proposed within the area would be subject to the land use controls and development standards in effect at the time of project submittal. Furthermore, most individual projects would be subject to their own environmental review and would be conditioned to incorporate mitigation measures to reduce potential impacts, to the extent feasible. Compliance with the applicable land use controls and development standards would ensure that most potential land use impacts would remain less than significant.

Furthermore, implementation of GP-50 would require LADWP to further coordinate with applicable agencies to ensure that no conflicts with their respective land use plans and policies would occur. Therefore, impacts related to potential conflicts with applicable land use plans, goals, or policies would be less than significant.

Impact LU-2 (*Construction of the Project would temporarily disrupt, displace or preclude existing residential land uses*) and Impact LU-3 (*Construction of the Project would temporarily disrupt, displace or preclude existing non-residential land uses*) would not contribute to a cumulatively considerable effect. Residential, commercial, and public facility/utility developments have been proposed or are currently under construction adjacent to and/or would be traversed by Alternative 3. Project construction occurring at the same time as Alternative 3 and affecting residential or non-residential land uses within 1,000 feet of Alternative 3 is unknown.
Construction of the proposed Project, however, would likely occur during the year 2012. A definitive construction schedule is not currently available for all of the planned/proposed residential and commercial/public facility projects listed in Table 7.1-3 in Appendix A. It is assumed, however, that construction of some of these projects would overlap with construction of Alternative 3. The construction of multiple projects within the same area could create a potentially significant impact to adjacent residential and non-residential land uses in the form of noise, dust, traffic and general neighborhood disruption as a result of heavy construction equipment and moving building materials to and from construction staging areas. Also, commercial land uses would be impacted if access to a business was affected or precluded during construction activities from the projects occurring simultaneously in close proximity to Alternative 3.

The proposed Project would be designed and constructed such that transmission structures would be located to maximize avoidance of sensitive land uses. In addition, GPs (refer to the EIS/EIR, Chapter 2) and mitigation measures (see Chapter 4) that would reduce noise, traffic, and air quality impacts would be implemented, but these measures would not eliminate the disturbance to land use. While this disturbance would be short-term and temporary, given the existing cumulative land use impact that would occur from the construction of multiple projects, the impact would be significant if construction is not carefully managed and area users kept informed. Implementation of GP-50 and GP-59 would reduce the Alternative 3 contribution to this impact, to less than cumulatively considerable, because affected property and business owners would be informed of potential disturbances.

Impact LU-4 (Operation and maintenance of the Project would cause long-term disruption of existing and planned residential land uses) would create an incremental effect that is cumulatively considerable. Portions of Alternative 3 would be constructed within the planned residential development boundaries of the Mojave, Soledad Mountain-Elephant Butte, Willow Springs, Ritter Ranch, and City Ranch Specific Plans. Alternative 3 would also abut existing residential properties in Los Angeles County. The proposed Alta-Oak Creek Mojave Wind Energy Project would occupy land within the Soledad Mountain-Elephant Butte Specific Plan area, which may preclude future residential development. Segment 3 of the Antelope Transmission Project would be constructed generally parallel to Alternative 3, southwest of the Willow Springs area. However, prior to the construction of transmission projects, regulatory approvals and the rights to construct and operate the projects with affected private property owners would need to be obtained. Given that the utilities would secure new ROWs with existing property owners, the Alternative 3 incremental contribution to the cumulative impact would be less than significant.

Impact LU-5 (Operation and maintenance of the Project would cause long-term disruption of existing and planned non-residential land uses) would create an incremental effect that is cumulative in nature. Non-residential land uses within one-half mile of Alternative 3 would include mineral extraction, utilities, resource management, transportation, and light industrial uses discussed in Section 5.0. These land uses are under the jurisdiction of federal and agencies that include the California DWR, California Department of Parks and Recreation, California Department of Transportation, USFS, BLM, and DoD. A number of county and city jurisdictions would also be traversed by Alternative 3. As described above for Impact LU-4, energy projects have been proposed within one-half mile of Alternative 3. The Alta-Oak Creek Mojave Wind Energy Project may conflict with existing or proposed non-residential land uses in Kern County. The impacts of these projects in combination with Alternative 3 would result in a potentially significant cumulative effect on non-residential land uses. However, GP-50 would reduce the incremental effect of Alternative 3. This practice would allow the affected agencies to address and reconcile any future potential conflicts that Alternative 3 may pose to the management and use of non-residential lands. With implementation of GP-50, the Alternative 3 cumulative impact would be less than significant.
7.5.4 Agriculture

Introduction
In considering cumulative effects on agricultural resources, while one project may not significantly affect agriculture, the cumulative effect of numerous smaller projects may. Projects often employ mitigation measures to reduce impacts. A proposed project should be examined within the scope of the existing setting and the examination should take into account new and planned similar and nearby projects.

Impact Area
Although the data on Farmland and lands under Williamson Act contract are collected and analyzed by county, because of the large geographic extent of the counties affected by the Proposed Action and Alternatives and limited geographic scope of associated agricultural impacts, analysis of the cumulative effects at a county-wide level would not yield valuable results. Consequently, the geographic scope of this cumulative effects analysis is limited to the area in the vicinity of the Proposed Action and Alternatives, a corridor of 0.5 mile on either side of each Alternative in southern Kern County and northern Los Angeles County.

Present and Reasonably Foreseeable Actions
Existing cumulative conditions for agricultural resources are defined by past and present use and conversion of agricultural lands.

Alternative 1
Alternative 1 would traverse 2.8 linear miles of agricultural land (cropland). Of the 2.8 linear miles of agricultural land, 1.6 miles are Williamson Act lands. No lands were identified as Department of Conservation (DOC) Farmlands.

The trend in residential development is representative of reasonably foreseeable future actions in the cumulative effects area, as supported by the population growth forecasted throughout the Alternative 1 area. Due to the relatively limited extent of agricultural resources compared to the total area that would be traversed by Alternative 1, a list approach is used to identify foreseeable projects in the vicinity of agricultural resources affected by Alternative 1. Reasonably foreseeable future actions within the Alternative 1 area are expected to be characteristic of past and ongoing projects.

The portion of Kern County in the vicinity of Alternative 1 is largely characterized by open space, active or fallow agricultural land, and rural residences. Agricultural lands in the more urban parts of Kern County are being converted for residential development.

Kern County has experienced increased population growth and development, particularly in and surrounding Bakersfield and Rosedale. According to the Kern County General Plan, the County’s population is expected to exceed 1,088,600 people by the year 2020. Similar to the statewide trend, the county’s agriculture areas are facing increasing pressure to convert productive farmland to housing, industrial, and commercial development.

The northern portion of Alternative 1 in Los Angeles County from Kern County to the ANF is characterized by open space and agricultural areas (e.g., unincorporated community of Neenach); although near the city of Santa Clarita, areas are experiencing growth, which in turn, is driving the expansion of residential development into open spaces.

While some agricultural production occurs within the ANF, this is characterized by tree plantations rather than by irrigated agricultural lands. These plantations are not threatened by development, but rather by fire, insects, and disease. Consequently, these plantations receive fuel management and vegetation
management treatments to ensure the continued health of the plantations through projects like the Santa Clara/Mojave River Rangers District Plantation Maintenance Project.

Little agricultural land remains in northern Los Angeles County, particularly in the vicinity of Alternative 1. Residential development continues to expand in open space areas. Because of the lack of agricultural land in this area, there are few agricultural resources to be affected.

The population in Los Angeles County is expected to increase by varying degrees, depending on the city, with the city of Santa Clarita experiencing a high growth rate. Development and urbanization in Los Angeles County is expected to continue and increase substantially to accommodate the growing population.

While fuel and vegetation management treatments are being performed on plantations within the ANF, it is foreseeable that projects like the Santa Clara/Mojave River Rangers District Plantation Maintenance Project would continue on a regular basis to ensure the continued health of the plantations. It is anticipated that these areas would continue to be protected from development and that plantations could potentially be expanded within ANF.

Alternative 2 and Alternative 2a

Alternative 2 and Alternative 2a would both traverse 4.5 linear miles of agricultural land (cropland). Of the 4.5 linear miles of agricultural land, 3.7 miles are DOC Farmlands. No lands were identified as Williamson Act lands.

As discussed above, ongoing development throughout the cumulative effects area for agricultural resources is typically characterized by the conversion of Farmland to grazing land, and grazing land to residential developments, clustered in and around community developments on non-USFS lands. This trend in residential development is also representative of reasonably foreseeable future actions in the cumulative effects area, as supported by the population growth forecasted throughout the Alternative 2 and Alternative 2a area. Due to the relatively limited extent of agricultural resources compared to the total area that would be traversed by Alternative 2 or Alternative 2a, a list approach is used to identify foreseeable projects in the vicinity. Reasonably foreseeable future actions within the area are expected to be characteristic of past and ongoing projects.

The portion of Kern County in the vicinity of Alternative 2 and Alternative 2a is largely characterized by open space, active or fallow agricultural land, and rural residences. While in more urban parts of Kern County agricultural lands are being converted for residential development, in the rural area around Alternative 2 and Alternative 2a, conversion of irrigated Farmland is usually a result of taking it out of production to allow for grazing.

Kern County has experienced increased population growth and development, particularly in and surrounding Bakersfield and Rosedale. According to the Kern County General Plan (2007), the county’s population is expected to exceed 1,088,600 people by the year 2020. Similar to the statewide trend, the County’s agriculture areas are facing increasing pressure to convert productive farmland to housing, industrial, and commercial development.

The northern portion of Alternative 2 and Alternative 2a from Kern County to the ANF is characterized by open space and agricultural areas, although the cities of Lancaster and Palmdale are experiencing growth that is driving the expansion of residential development into open spaces, such as with Ritter Ranch, City Ranch, Joshua Ranch, and other developments. While little irrigated Farmland has been converted for residential development, as in Kern County, this land is being taken out of production for use as grazing land.
While some agricultural production occurs within the ANF, this is characterized by tree plantations rather than by irrigated agricultural lands. These plantations are not threatened by development, but rather by fire, insects, and disease. Consequently, these plantations receive fuel management and vegetation management treatments to ensure the continued health of the plantations through projects like the Santa Clara/Mojave River Rangers District Plantation Maintenance Project.

Little agricultural land remains in northern Los Angeles County, particularly in the vicinity of the Proposed Action. Residential development continues to expand in open space areas. Because of the lack of agricultural land in this area, there are few agricultural resources to be affected.

The population in Los Angeles County is expected to increase by varying degrees, depending on the city, with the cities of Lancaster and Palmdale both experiencing high growth rates. As such, development and urbanization in Los Angeles County is expected to continue and increase substantially to accommodate the growing population. Accommodation of this population growth requires infrastructure projects, such as the Antelope Transmission Project Segment 3, TRTP Segment 4, the Antelope Valley Water Bank Project, the California High Speed Rail, and the Orangeline High Speed Maglev Project, all of which are in the vicinity of agricultural lands. As with Kern County, Farmland is typically taken out of production and converted to grazing land, which is then later converted for residential development.

While fuel and vegetation management treatments are being performed on plantations within the ANF, it is foreseeable that projects like the Santa Clara/Mojave River Rangers District Plantation Maintenance Project would continue on a regular basis to ensure the continued health of the plantations. It is anticipated that these areas would continue to be protected from development and that plantations could potentially be expanded within ANF.

**Alternative 3**

Alternative 3 would traverse 4.5 linear miles of agricultural land (cropland). Of the 4.5 linear miles of agricultural land, 4.7 miles are DOC Farmlands. No lands were identified as Williamson Act lands.

As discussed above, ongoing development throughout the cumulative effects area for agricultural resources is typically characterized by the conversion of Farmland to grazing land, and grazing land to residential developments, clustered in and around community developments on non-USFS lands. This trend in residential development is also representative of reasonably foreseeable future actions in the cumulative effects area, as supported by the population growth forecasted throughout the Alternative 3 area. Due to the relatively limited extent of agricultural resources compared to the total area that would be traversed by Alternative 3, a list approach is used to identify foreseeable projects in the vicinity of agricultural resources affected by Alternative 3. Reasonably foreseeable future actions within the Alternative 3 area are expected to be characteristic of past and ongoing projects.

The portion of Kern County in the vicinity of Alternative 3 is largely characterized by open space, active or fallow agricultural land, and rural residences. While in more urban parts of Kern County agricultural lands are being converted for residential development, in the rural area around Alternative 3, conversion of irrigated Farmland is usually a result of taking it out of production to allow for grazing.

Kern County has experienced increased population growth and development, particularly in and surrounding Bakersfield and Rosedale. According to the Kern County General Plan the County’s population is expected to exceed 1,088,600 people by the year 2020. Similar to the statewide trend, the County’s agriculture areas are facing increasing pressure to convert productive farmland to housing, industrial, and commercial development.

The northern portion of Alternative 3 in Los Angeles County from Kern County to the ANF is characterized by open space and agricultural areas, although the cities of Lancaster and Palmdale are
experiencing growth that is driving the expansion of residential development into open spaces, such as with Ritter Ranch, City Ranch, Joshua Ranch, and other developments. While little irrigated Farmland has been converted for residential development, as in Kern County, this land is being taken out of production for use as grazing land.

While some agricultural production occurs within the ANF, this is characterized by tree plantations rather than by irrigated agricultural lands. These plantations are not threatened by development, but rather by fire, insects, and disease. Consequently, these plantations receive fuel management and vegetation management treatments to ensure the continued health of the plantations through projects like the Santa Clara/Mojave River Rangers District Plantation Maintenance Project.

Little agricultural land remains in northern Los Angeles County, particularly in the vicinity of Alternative 3. Residential development continues to expand in open space areas. Because of the lack of agricultural land in this area, there are few agricultural resources to be affected.

The population in Los Angeles County is expected to increase by varying degrees, depending on the city, with the cities of Lancaster and Palmdale both experiencing high growth rates. As such, development and urbanization in Los Angeles County is expected to continue and increase substantially to accommodate the growing population. Accommodation of this population growth requires infrastructure projects, such as the Antelope Transmission Project Segments 1-3, TRTP Segments 4-11, the Antelope Valley Water Bank Project, the California High Speed Rail, and the Orangeline High Speed Maglev Project, all of which are in the vicinity of agricultural lands. As with Kern County, Important Farmland is typically taken out of production and converted to grazing land, which is then later converted for residential development.

While fuel and vegetation management treatments are being performed on plantations within the ANF, it is foreseeable that projects like the Santa Clara/Mojave River Rangers District Plantation Maintenance Project would continue on a regular basis to ensure the continued health of the plantations. It is anticipated that these areas would continue to be protected from development and that plantations could potentially be expanded within ANF.

**Cumulative Effects Evaluation**

**Alternative 1**

Impacts AG-3 and AG-4, as described and analyzed below, would combine with the similar effects of other projects. The potential for Agricultural Resources impacts of Alternative 1 to combine with similar impacts of other projects within the geographic scope of the cumulative analysis is described below.

*Construction activities would interfere with agricultural operations (Impact AG-3).* Alternative 1 would temporarily interfere with active agricultural operations by impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity. Alternative 1 impacts would be significant when combined with impacts of current and future projects if those projects would interfere with operations to the same agricultural lands at the same time as Alternative 1. However, based on the locations of the current and reasonably foreseeable projects listed in Table 7.1-3 in Appendix A and the relatively small number of agricultural lands that would be affected by them or Alternative 1, it is unlikely any of those projects would impact the same agricultural land at the same time as Alternative 1. Therefore, Alternative 1 impacts would not combine with impacts from other current and reasonably foreseeable projects to result in a cumulative impact (No Impact).

*Operation would interfere with agricultural operations (Impact AG-4).* The operation of Alternative 1 across 2.8 miles of agricultural land would interfere with agricultural operations by dividing farm properties, creating irregularly shaped fields, disrupting drainage and irrigation systems, affecting the
efficacy of windbreaks, fragmenting farms, and allowing for the introduction of invasive weeds within and around disturbed areas. Although it is currently unknown whether any of the reasonably foreseeable projects would convert agricultural land to non-agricultural uses, given the large number of energy infrastructure projects, it is reasonable to assume that some agricultural land would be permanently converted. The effects of the operation of these other planned projects on agricultural operations would be cumulatively significant. VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Both measures would help to reduce the Alternative 1 incremental contribution to the cumulative significance of Impact AG-4. However, despite implementation of these measures for Alternative 1, Impact AG-4 would have the potential to combine with other similar impacts of other projects; as such, Impact AG-4 would be cumulatively significant and unavoidable.

Alternative 2 and Alternative 2a
Impacts AG-1, AG-3, and AG-4, as described and analyzed below, would combine with the similar effects of other projects. The potential for Agricultural Resources impacts of Alternative 2 or Alternative 2a to combine with similar impacts of other projects within the geographic scope of the cumulative analysis is described below.

Construction activities would temporarily preclude the agricultural use of Farmland (Impact AG-1). Alternative 2 or Alternative 2a would result in the temporary conversion of 224 acres of Farmland due to construction activities. In these areas, construction of solar generation projects in Kern County would result in areas of Farmland being converted to non-agricultural uses. The effects of the construction of these planned projects would be cumulatively significant. The following measures would be implemented for Alternative 2 or Alternative 2a and would help to reduce the incremental contribution to the cumulative significance of Impact AG-1: VIS-17 and GP-37. However, despite implementation of these measures for Alternative 2 or Alternative 2a, Impact AG-1 would have the potential to combine with other, similar impacts of other projects; as such, Impact AG-1 would be cumulatively significant and unavoidable under CEQA.

Construction activities would interfere with agricultural operations (Impact AG-3). Alternative 2 and Alternative 2a would both traverse 4.5 miles of agricultural land, and construction activities across these lands would interfere with agricultural operations in these areas. Construction of solar generation projects, Antelope Transmission Project Segment 3, and the Antelope Valley Water Bank Project would disrupt agricultural operations both through the disruption of agricultural land and through construction activities on and adjacent to agricultural lands. The effects of the construction of these other planned projects on agricultural operations would be cumulatively significant. The following measures would be implemented for Alternative 2 or Alternative 2a and would help to reduce the incremental contribution to the cumulative significance of Impact AG-3: VIS-17 and GP-37. However, despite implementation of these measures, Impact AG-3 would have the potential to combine with other similar impacts of other projects; as such, Impact AG-3 would be cumulatively significant and unavoidable under CEQA.

Operation would interfere with agricultural operations (Impact AG-4). The operation of Alternative 2 or Alternative 2a across 4.5 miles of agricultural land would interfere with agricultural operations by dividing farm properties, creating irregularly shaped fields, disrupting drainage and irrigation systems, affecting the efficacy of windbreaks, fragmenting farms, and allowing for the introduction of invasive weeds within and around disturbed areas. The projects listed above for Impact AG-3 would also result in these similar impacts, although on a larger scale, and cumulatively interfere with a substantial number of agricultural operations. The effects of the operation of these other planned projects on agricultural operations would be cumulatively significant. VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Both measures would be implemented for
Alternative 2 or Alternative 2a and would help to reduce the incremental contribution to the cumulative significance of Impact AG-4. However, despite implementation of these measures for the Proposed Action, Impact AG-4 would have the potential to combine with other, similar impacts of other projects; as such, Impact AG-4 would be cumulatively significant and unavoidable under CEQA.

**Alternative 3**

Impacts AG-1, AG-3, and AG-4, as described and analyzed below, would combine with the similar effects of other projects. The potential for Agricultural Resources impacts of Alternative 3 to combine with similar impacts of other projects within the geographic scope of the cumulative analysis is described below.

*Construction activities would temporarily preclude the agricultural use of Farmland (Impact AG-1).* Alternative 3 would result in the temporary conversion of 224 acres of Farmland due to construction activities. In these areas, construction of solar generation projects in Kern County would result in areas of Farmland being converted to non-agricultural uses. The effects of the construction of these planned projects would be cumulatively significant. The following measures would be implemented for Alternative 3 and would help to reduce the Alternative 3 incremental contribution to the cumulative significance of Impact AG-1: VIS-17 and GP-37. However, despite implementation of these measures for Alternative 3, Impact AG-1 would have the potential to combine with other similar impacts of other projects; as such, Impact AG-1 would be cumulatively significant and unavoidable under CEQA.

*Construction activities would interfere with agricultural operations (Impact AG-3).* Alternative 3 would traverse 4.5 miles of agricultural land, and construction activities across these lands would interfere with agricultural operations in these areas. Construction of solar generation projects, Antelope Transmission Project Segment 3, and the Antelope Valley Water Bank Project would disrupt agricultural operations both through the disruption of agricultural land as well as through construction activities on and adjacent to agricultural lands. The effects of the construction of these other planned projects on agricultural operations would be cumulatively significant. The following measures would be implemented for Alternative 3 and would help to reduce the Alternative 3 incremental contribution to the cumulative significance of Impact AG-3: VIS-17 and GP-37. However, despite implementation of these measures for Alternative 3, Impact AG-3 would have the potential to combine with other similar impacts of other projects; as such, Impact AG-3 would be cumulatively significant and unavoidable under CEQA.

*Operation would interfere with agricultural operations (Impact AG-4).* The operation of Alternative 3 across 4.5 miles of agricultural land would interfere with agricultural operations by dividing farm properties, creating irregularly shaped fields, disrupting drainage and irrigation systems, affecting the efficacy of windbreaks, fragmenting farms, and allowing for the introduction of invasive weeds within and around disturbed areas. The projects listed above for Impact AG-3 would also result in these similar impacts, although on a larger scale, and cumulatively interfere with a substantial number of agricultural operations. The effects of the operation of these other planned projects on agricultural operations would be cumulatively significant. VIS-17 would be implemented to site construction and would minimize impacts to agricultural lands, and GP-37 would require the restoration of disturbed land to pre-determined or approximate pre-construction conditions. Both measures would be implemented for Alternative 3 and would help to reduce the Alternative 3 incremental contribution to the cumulative significance of Impact AG-4. However, despite implementation of these measures for Alternative 3, Impact AG-4 would have the potential to combine with other similar impacts of other projects; as such, Impact AG-4 would be cumulatively significant and unavoidable under CEQA.
7.5.5 Recreation

Introduction

In considering cumulative effects on recreation, while one project may not significantly affect recreation, the cumulative effect of numerous smaller projects may. Projects often employ feasible mitigation measures to reduce impacts. A proposed project should be examined within the scope of the existing setting and the examination should take into account new and planned similar and nearby projects.

Impact Area

The geographic extent of the cumulative effects analysis is the same as the extent of the Project area setting described in Chapter 3, Section 3.2.5 (Recreation) of the EIS/EIR. As such, the cumulative effects analysis is presented in two separate geographic regions: Kern County, which includes parts of southern Kern County, and Los Angeles County, which encompasses the ANF and portions of northern Los Angeles County. This geographic scope is appropriate for the issue area of recreation because impacts of the proposed Project would not be expected to combine with similar impacts of other projects beyond this area.

Present and Reasonably Foreseeable Actions

Existing cumulative conditions for recreation are defined by past and present designation and development of recreational resources. Ongoing development throughout the cumulative effects area for recreation is dominated by residential developments, clustered in and around communities located on non-NFS lands. This trend in residential development is also representative of reasonably foreseeable future actions in the cumulative effects area, as supported by population growth forecasted throughout the area. Reasonably foreseeable future actions within the area are expected to be characteristic of past and ongoing projects.

The impact area within in Kern County is largely characterized by open space and agricultural areas, with small concentrations of residential development. Recreational resources are primarily in the form of open space, OHV (off-highway vehicle) roads, and walking trails. Developed recreation facilities can be found in or near the unincorporated community of Mojave and the unincorporated community of Rosamond. BLM public lands, located north of the unincorporated community of Mojave, offer dispersed recreational opportunities.

It is expected that open space areas which are currently used by recreationists for OHV use, hiking, and general outdoor enjoyment, would be utilized for the construction of residential developments and energy infrastructure. With regards to recreation, it is also reasonably foreseeable that additional facilities and resources such as sporting fields and park areas would be established to meet the needs of an increasing population (especially in or near communities). However, this type of development is commonly located on former open space or agricultural areas and therefore, as such development continues, less open space would be available for recreational purposes such as hiking and OHV use.

Within Los Angeles County, existing cumulative conditions include efforts by the USFS to manage the ANF. From a recreation perspective, past and present projects within the ANF are characterized by USFS activities to improve and maintain developed recreation resources such as campgrounds and picnic areas, manage trails and OHV networks, and prevent construction within or degradation of designated wilderness areas. Section 5.1.4 provides a detailed description of recreational resources in the ANF that have resulted from past and present projects and make up the existing cumulative conditions. In addition to projects across the ANF, an increase in the developmental density surrounding the ANF has strained the capacity of the recreational resources on National Forest System (NFS) lands. Recreational facilities such as roads, trails, campgrounds, and day use areas have been constructed to meet the demands of increased visitation to the ANF.
Outside the ANF within Los Angeles County, rapid development and population growth has occurred within and surrounding the incorporated cities of Santa Clarita, Lancaster and Palmdale. Some of this population growth has been situated in open space areas in northern Los Angeles County. For example, the Ritter Ranch and City Ranch developments that are currently under construction, in addition to the approved Agua Dulce Residential Project (TR 50385), are located in former open space areas.

As with the future non-NFS projects, the past and ongoing NFS projects are representative of future NFS projects. It is expected that most of these projects are focused on repairs, re-establishment, or rehabilitation of existing facilities. Some of the USFS projects that are planned or underway in the ANF include plantation maintenance, restoration, and habitat improvement projects as well as a variety of “fuels reduction” activities, which include fire prevention measures throughout the Forest. These projects indicate a persistence of past and present USFS activities to preserve natural resources within the Forest while providing recreational opportunities for the public. Reasonably foreseeable changes to recreational resources in the Forest may include improvements to and expansion of existing resources, as well as establishment of additional resources or facilities. It is expected that existing wilderness areas in the Forest would continue to be protected from development and expanded if possible (for instance, through the conversion of an Inventoried Roadless Area under consideration for wilderness designation to a designated Wilderness Area).

As previously discussed, northern Los Angeles County is currently undergoing rapid population growth and development, particularly in and surrounding the cities of Santa Clarita, Lancaster and Palmdale. This trend is expected to continue and increase substantially to accommodate the growing population. With regards to recreation, it is also reasonably foreseeable that additional facilities and resources such as sporting fields and park areas would be established to meet the needs of the growing population. However, development in this region is commonly located on former open space areas; therefore, as such development continues, less open space would be available for recreational purposes. It is assumed that the Los Angeles County Riding and Hiking Trails network, which is described in Section 5.1.4, would continue to be managed and protected by the LA County Department of Parks and Recreation.

Cumulative Effects Evaluation

Alternative 1

Recreation impacts would be cumulatively considerable, if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. The following recreation impacts would have an incremental effect on the cumulative scenario. The potential for cumulatively considerable recreation impacts of Alternative 1 to combine with similar impacts of other projects within the geographic scope of the cumulative analysis are described below.

Construction activities would restrict access to or disrupt activities within established recreational areas (Impact R-1). Construction activities associated with Alternative 1 would result in temporary access restrictions and/or disruption of existing activities associated with established recreational areas. If construction activities for other projects in the Alternative 1 impact area result in similar impacts to established recreational resources or opportunities, and such impacts would occur at the same time as those associated with Alternative 1 construction activities, the resulting impacts would be cumulatively considerable to recreational resources. Due to the rapid growth that is current and ongoing in northern Los Angeles County, in addition to the history of Forest maintenance activities and other projects that are expected to continue into the future, it is reasonably foreseeable that Impact R-1 would be cumulatively considerable. Due to the likely potential for this impact to affect the same recreational resource(s) at the same time, Impact R-1 would be significant and unavoidable.

Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas (Impact R-2). Operation and maintenance of Alternative 1 would have the potential to temporarily restrict access to or disrupt activities within some recreational areas and recreation resources
as a result of site-specific activities needed to operate and maintain the transmission line. Recreational resources and opportunities located within the Alternative 1 ROW would be particularly susceptible to Impact R-2. Alternative 1 would not result in permanent loss or degradation of recreational resources in the Alternative 1 impact area. If operation and maintenance activities associated with other projects in the geographic scope of this cumulative analysis would also result in temporary access restriction or disruption of existing activities within established recreational areas, and such effects of the operation and maintenance of other projects occur at the same time as they would for Alternative 1, the resulting impacts would be cumulatively considerable to recreational resources in the Alternative 1 area. However, it is highly unlikely that operation and maintenance activities for multiple projects would result in similar impacts to the same recreational resources at the same time. Furthermore, specifically recommended mitigation measures that would be implemented for Alternative 1 would ensure that Project activities would be coordinated with recreation officers, thereby allowing for the planning of operation and maintenance activities so that similar impacts of Alternative 1 and other cumulative projects would not affect the same recreational resources at the same time. Cumulative impacts would not be significant.

The Proposed Action would cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT) (Impact R-3). The Alternative 1 route would cross over the PCT in two locations. If other projects introduce new infrastructure along the PCT or introduce construction impacts similar to Alternative 1 along the PCT and at the same time as those of Alternative 1, it would be possible for such impacts to combine with impacts of Alternative 1 and result in significant cumulative impacts. It is unlikely that the construction of other projects would occur at the same time as Alternative 1 and near the same locations where Alternative 1 would cross the PCT. However, long-term loss or degradation of the PCT could occur through effects to the unique recreational experience available to hikers along the PCT, as well as physical loss of trail access. Such effects to the recreational experience of the PCT could include the following: installation of infrastructure which would contrast substantially with natural aesthetics currently existing along the PCT; introduction of noise levels that would be substantially greater or have substantially different characteristics than those which currently exist along the PCT; any other Project-related activity that would substantially contrast with the existing backcountry experience of the PCT. As such, any past or reasonably foreseeable project that could affect the recreational experience for PCT users and could combine with this impact of Alternative 1 would be considered cumulatively significant. Given the fact that urbanization is rapidly expanding within northern Los Angeles County, as demonstrated through the existing cumulative scenario, it is reasonable to conclude that projects related to such urban expansion could affect the PCT and potentially lead to the long-term loss or degradation of the trail. Although mitigation measures required for Alternative 1 would help to reduce the Alternative 1 incremental contribution to the cumulative significance of Impact R-3, this impact would still have the potential to combine with other, similar impacts of projects in the cumulative scenario. Because the PCT is considered to be particularly valuable and a unique recreational resource, any combination of similar impacts that would affect the PCT in the Alternative 1 impact area would result in a significant cumulative impact.

The Project would contribute to degradation of Off-Highway Vehicle (OHV) trails or would result in a loss of recreational opportunity for OHV users (Impact R-4). This impact is not expected to occur outside of the ANF. Alternative 1 would contribute to the temporary loss of recreational opportunities for OHV users in the ANF. Reasonably foreseeable projects identified in Section 7.5.1, however, would not contribute to this loss. As such, Impact R-4 would not have the potential to combine with impacts of other ANF projects to result in a cumulative impact.

The Project would facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities (Impact R-5). Roadways that are improved or installed to facilitate Alternative 1 construction or operation and maintenance activities could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes. From a cumulative perspective, past projects throughout the Alternative 1 area, particularly in the ANF, have included the installation of roadways that facilitate unmanaged recreational
uses. In addition, in light of expanding residential developments, particularly in Los Angeles County, new roadways are expected to be installed throughout the region and it is reasonably assumed that such roads could be used for unauthorized recreational purposes in the future. Impact R-5 would be cumulatively significant and unavoidable under CEQA.

**Alternative 2 and Alternative 2a**

Recreation impacts would be cumulatively considerable, if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable future projects. The following recreation impacts would have an incremental effect on the cumulative scenario. The potential for cumulatively considerable recreation impacts of Alternative 2 or Alternative 2a to combine with similar impacts of other projects within the geographic scope of the cumulative analysis are described below.

*Construction activities would restrict access to or disrupt activities within established recreational areas (Impact R-1).* Construction activities associated with Alternative 2 and Alternative 2a would result in temporary access restrictions and/or disruption of existing activities associated with established recreational areas. If construction activities for other projects in the Alternative 2 or Alternative 2a impact areas result in similar impacts to established recreational resources or opportunities, and such impacts would occur at the same time as those associated with construction activities associated with Alternative 2 or Alternative 2a, the resulting impacts would be cumulatively considerable to recreational resources. Due to the rapid growth that is current and ongoing in northern Los Angeles County, in addition to the history of Forest maintenance activities and other projects that are expected to continue into the future, it is reasonably foreseeable that Impact R-1 would be cumulatively considerable. Due to the likely potential for this impact to affect the same recreational resource(s) at the same time, Impact R-1 would be significant and unavoidable.

*Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas (Impact R-2).* Operation and maintenance of Alternative 2 or Alternative 2a would have the potential to temporarily restrict access to or disrupt activities within some recreational areas and recreation resources as a result of site-specific activities needed to operate and maintain the transmission line. Recreational resources and opportunities located within the Alternative 2 ROW would be particularly susceptible to Impact R-2. Neither Alternative 2 nor Alternative 2a would not result in permanent loss or degradation of recreational resources in the impact area. If operation and maintenance activities associated with other projects in the geographic scope of this cumulative analysis would also result in temporary access restriction or disruption of existing activities within established recreational areas, and such effects of the operation and maintenance of other projects occur at the same time as they would for Alternative 2 or Alternative 2a, the resulting impacts would be cumulatively considerable to recreational resources in the area. However, it is highly unlikely that operation and maintenance activities for multiple projects would result in similar impacts to the same recreational resources at the same time. Furthermore, specifically recommended mitigation measures that would be implemented for Alternative 2 and Alternative 2a would ensure that Project activities would be coordinated with recreation officers, thereby allowing for the planning of operation and maintenance activities so that similar impacts of Alternative 2 or Alternative 2a and other cumulative projects would not affect the same recreational resources at the same time. Cumulative impacts would not be significant.

*The Project would cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT) (Impact R-3).* The Alternative 2 and Alternative 2a routes would each cross over the PCT in one location. If other projects introduce new infrastructure along the PCT or introduce construction impacts similar to Alternative 2 or Alternative 2a along the PCT and at the same time as those of Alternative 2 or Alternative 2a, it would be possible for such impacts to combine with impacts of Alternative 2 or Alternative 2a and result in significant cumulative impacts. It is unlikely that the construction of other projects would occur at the same time as Alternative 2 or Alternative 2a and near the same PCT crossing. However, long-term loss or degradation of the PCT could occur through effects to the unique recreational
experience available to hikers along the PCT, as well as physical loss of trail access. Such effects to the recreational experience of the PCT could include the following: installation of infrastructure which would contrast substantially with natural aesthetics currently existing along the PCT; introduction of noise levels that would be substantially greater or have substantially different characteristics than those which currently exist along the PCT; any other Project-related activity that would substantially contrast with the existing backcountry experience of the PCT. As such, any past or reasonably foreseeable project that could affect the recreational experience for PCT users and could combine with this impact of Alternative 2 or Alternative 2a would be considered cumulatively significant. Given the fact that urbanization is rapidly expanding within northern Los Angeles County, as demonstrated through the existing cumulative scenario, it is reasonable to conclude that projects related to such urban expansion could affect the PCT and potentially lead to the long-term loss or degradation of the trail. Although mitigation measures required for Alternative 2 or Alternative 2a would help to reduce the incremental contribution to the cumulative significance of Impact R-3, this impact would still have the potential to combine with other, similar impacts of projects in the cumulative scenario. Because the PCT is considered to be particularly valuable and a unique recreational resource, any combination of similar impacts that would affect the PCT in the impact area would result in a significant cumulative impact.

The Project would contribute to degradation of Off-Highway Vehicle (OHV) trails or would result in a loss of recreational opportunity for OHV users (Impact R-4). This impact is not expected to occur outside of the ANF. Alternative 2 or Alternative 2a would contribute to the temporary loss of recreational opportunities for OHV users in the ANF. Reasonably foreseeable projects identified in Section 7.5.1, however, would not contribute to this loss. As such, Impact R-4 would not have the potential to combine with impacts of other ANF projects to result in a cumulative impact.

The Project would facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities (Impact R-5). Roadways that are improved or installed to facilitate Alternative 2 or Alternative 2a construction or operation and maintenance activities could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes. From a cumulative perspective, past projects throughout the area, particularly in the ANF, have included the installation of roadways that facilitate unmanaged recreational uses. In addition, in light of expanding residential developments, particularly in Los Angeles County, new roadways are expected to be installed throughout the region and it is reasonably assumed that such roads could be used for unauthorized recreational purposes in the future. Impact R-5 would be cumulatively significant and unavoidable under CEQA.

Alternative 3

Recreation impacts would be cumulatively considerable, if they would have the potential to combine with similar impacts of other past, present, or reasonably foreseeable projects. The following recreation impacts would have an incremental effect on the cumulative scenario. The potential for cumulatively considerable recreation impacts of Alternative 3 to combine with similar impacts of other projects within the geographic scope of the cumulative analysis are described below.

Construction activities would restrict access to or disrupt activities within established recreational areas (Impact R-1). Construction activities associated with Alternative 3 would result in temporary access restrictions and/or disruption of existing activities associated with established recreational areas. If construction activities for other projects in the Alternative 3 impact area result in similar impacts to established recreational resources or opportunities, and such impacts would occur at the same time as those associated with Alternative 3 construction activities, the resulting impacts would be cumulatively considerable to recreational resources. Due to the rapid growth that is current and ongoing in northern Los Angeles County, in addition to the history of Forest maintenance activities and other projects that are expected to continue into the future, it is reasonably foreseeable that Impact R-1 would be cumulatively
considerable. Due to the likely potential for this impact to affect the same recreational resource(s) at the same time, Impact R-1 would be significant and unavoidable.

*Operation and maintenance activities would restrict access to or disrupt activities within established recreational areas (Impact R-2).* Operation and maintenance of Alternative 3 would have the potential to temporarily restrict access to or disrupt activities within some recreational areas and recreation resources as a result of site-specific activities needed to operate and maintain the transmission line. Recreational resources and opportunities located within the Alternative 3 ROW would be particularly susceptible to Impact R-2. Alternative 3 would not result in permanent loss or degradation of recreational resources in the Alternative 3 impact area. If operation and maintenance activities associated with other projects in the geographic scope of this cumulative analysis would also result in temporary access restriction or disruption of existing activities within established recreational areas, and such effects of the operation and maintenance of other projects occur at the same time as they would for Alternative 3, the resulting impacts would be cumulatively considerable to recreational resources in the Alternative 3 area. However, it is highly unlikely that operation and maintenance activities for multiple projects would result in similar impacts to the same recreational resources at the same time. Furthermore, specifically recommended mitigation measures that would be implemented for Alternative 3 would ensure that Project activities would be coordinated with recreation officers, thereby allowing for the planning of operation and maintenance activities so that similar impacts of Alternative 3 and other cumulative projects would not affect the same recreational resources at the same time. Cumulative impacts would not be significant.

*The Project would cause or contribute to degradation of the Pacific Crest National Scenic Trail (PCT) (Impact R-3).* The Alternative 3 route would cross over the PCT in two locations. If other projects introduce new infrastructure along the PCT or introduce construction impacts similar to Alternative 3 along the PCT and at the same time as those of Alternative 3, it would be possible for such impacts to combine with impacts of Alternative 3 and result in significant cumulative impacts. It is unlikely that the construction of other projects would occur at the same time as Alternative 3 and near the same locations where Alternative 3 would cross the PCT. However, long-term loss or degradation of the PCT could occur through effects to the unique recreational experience available to hikers along the PCT, as well as physical loss of trail access. Such effects to the recreational experience of the PCT could include the following: installation of infrastructure which would contrast substantially with natural aesthetics currently existing along the PCT; introduction of noise levels that would be substantially greater or have substantially different characteristics than those which currently exist along the PCT; any other Project-related activity that would substantially contrast with the existing backcountry experience of the PCT. As such, any past or reasonably foreseeable project that could affect the recreational experience for PCT users and could combine with this impact of Alternative 3 would be considered cumulatively significant. Given the fact that urbanization is rapidly expanding within northern Los Angeles County, as demonstrated through the existing cumulative scenario, it is reasonable to conclude that projects related to such urban expansion could affect the PCT and potentially lead to the long-term loss or degradation of the trail. Although mitigation measures required for Alternative 3 would help to reduce the Alternative 3 incremental contribution to the cumulative significance of Impact R-3, this impact would still have the potential to combine with other, similar impacts of projects in the cumulative scenario. Because the PCT is considered to be particularly valuable and a unique recreational resource, any combination of similar impacts that would affect the PCT in the Alternative 3 impact area would result in a significant cumulative impact.

*The Project would contribute to degradation of Off-Highway Vehicle (OHV) trails or would result in a loss of recreational opportunity for OHV users (Impact R-4).* This impact is not expected to occur outside of the ANF. Alternative 3 would contribute to the temporary loss of recreational opportunities for OHV users in the ANF. Reasonably foreseeable projects identified in Section 7.5.1, however, would not contribute to this loss. As such, Impact R-4 would not have the potential to combine with impacts of other ANF projects to result in a cumulative impact.
The Project would facilitate unmanaged recreational uses that would contribute to the long-term loss or degradation of recreational opportunities (Impact R-5). Roadways that are improved or installed to facilitate Alternative 3 construction or operation and maintenance activities could potentially be used by recreationists to gain unauthorized access to areas that are not designated or intended for certain recreational purposes. From a cumulative perspective, past projects throughout the Alternative 3 area, particularly in the ANF, have included the installation of roadways that facilitate unmanaged recreational uses. In addition, in light of expanding residential developments, particularly in Los Angeles County, new roadways are expected to be installed throughout the region and it is reasonably assumed that such roads could be used for unauthorized recreational purposes in the future. Impact R-5 would be cumulatively significant and unavoidable under CEQA.
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9.0 **ACRONYMS AND ABBREVIATIONS**

The following acronyms and abbreviations are used in the Land Use Technical Report.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AC</td>
<td>Alternating Current</td>
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<tr>
<td>AICUZ</td>
<td>Air Installation Compatible Use Zones</td>
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<td>ALUC</td>
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<td>Airport Land Use Compatibility Plan</td>
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<td>ANF</td>
<td>Angeles National Forest</td>
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<td>APZ</td>
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<td>ATCAA</td>
<td>Air Traffic Control Assigned Airspace</td>
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<td>AVATP</td>
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<td>AVSD</td>
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<td>BC</td>
<td>Back Country</td>
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<td>BCNM</td>
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<td>BCMCR</td>
<td>Back Country, Non-Motorized Use Restricted</td>
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<td>Bureau of Land Management</td>
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<td>Best Management Practices</td>
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<td>Electromagnetic Field</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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<td>EPA</td>
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<td>SCVAP</td>
<td>Santa Clarita Valley Area Plan</td>
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<td>Acronym</td>
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<td>Tubular steel pole</td>
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