4.11 MINERAL RESOURCES

4.11.1 Overview

This section describes the existing conditions related to mineral resources for the proposed Tehachapi Renewable Transmission Project (TRTP). The management of mineral resources is subject to numerous laws and regulations. Summaries of federal, state, and local laws and regulations related to management of mineral resources are presented in this section. This section presents a summary of the existing mineral resources in the vicinity of the proposed Project. The presence of mineral resources relative to the proposed Project is not expected to result in any potentially significant impacts; therefore, no mitigation measures are proposed.

4.11.2 Technical Methodology

The impact assessment for Mineral Resources relies on the significance criteria contained in the CEQA checklist presented in Appendix G of the State CEQA guidelines.

4.11.3 Regulations, Plans, and Standards

Regulations, plans, and standards for management of natural resources have been promulgated by federal and state government. Federal and state government allows local counties and cities to manage and/or implement many of the federal and state regulations relating to the management of natural resources. Administrative provisions have been enacted to allow for the development and management of mineral resources among federal, state, and local government. The highlighted details of potentially applicable federal, state, and local programs are presented below.

4.11.3.1 Regulatory Definitions

The following provides summary definitions of terms relating to mineral resources:

- **Aggregate:** Aggregate is defined by the California Geological Survey (CGS) as alluvial sand and gravel or crushed stone that meets standard specifications for use in Portland cement concrete or asphalt concrete. It is often distinguished from "traditional" oil and mineral deposits, however in the context of the PEA, it is considered a mineral resource.
- **Identified Resources:** Resources whose location, grade, quality, and quantity are known or estimated from specific geologic evidence. Identified resources include economic, marginally economic, and sub-economic components. To reflect varying degrees of geologic certainty, these economic divisions can be subdivided into measured, indicated, and inferred.

- **Mineral Deposit:** A naturally occurring concentration of minerals in amounts or arrangement that under certain conditions may constitute a mineral resource. The concentration may be of value for its chemical or physical characteristic or for both of these properties.
- **Mineral Resource Zone:** To implement the Surface Mining and Reclamation Act, the State Geologist developed the Mineral Resource Zone (MRZ) nomenclature and criteria based on the California Mineral Land Classification System. The California Mineral Land Classification System represents the relationship between knowledge of mineral deposits and their economic characteristics (grade and size). Lands are classified into four main categories: MRZ-1, areas where geologic information indicates no significant mineral deposits are present; MRZ-2, areas that contain identified mineral resources; MRZ-3, areas of undetermined mineral resource significance; and MRZ-4, areas of unknown mineral resource potential.
- **Reserves:** That part of the resource base which could be economically extracted or produced within the foreseeable future, usually used in reference to permitted resources. The term "reserves" need not signify that extraction facilities are in place and operative.
- **Resource:** A concentration of naturally occurring solid, liquid, or gaseous material in and/or on the Earth's crust in such form and amount that economic extraction of a commodity from the concentrations is currently potentially feasible.

4.11.3.2 Federal Authorities and Administering Agencies

4.11.3.2.1 United States Department of the Interior, Bureau of Land Management. The Bureau of Land Management (BLM) has prepared Resource Management Plans for California's Public Lands (2006). While BLM land along and/or in the general vicinity of the proposed TRTP transmission line (T/L) routes is limited, BLM typically allows for utility corridors.

4.11.3.2.2 United States Department of Agriculture, Forest Service. The United States Forest Service (USFS) manages National Forests, including the Angeles National Forest (ANF), which is present for two TRTP alignments (Segments 6 and 11). The Land Management Plan prepared by the USFS addresses minerals; oil and gas; high quality metallurgical, chemical, and cement grade carbonate rock; and mineral materials (USFS, 2005). The goal of the USFS is to manage development to continue to produce mineral and energy resources while minimizing adverse impacts to surface water and groundwater. The USFS also supports the development of renewable resources, including the generation of timber as a by-product of ecosystem management, healthy forest restoration, and fuel management.

4.11.3.3 State Authorities and Administering Agencies

4.11.3.3.1 California Environmental Quality Act of 1970 (CEQA), California Public Resources Code Sections 21000-21177.1. The California Public Utilities Commission (CPUC) will be the lead agency for rules and regulations to implement the California Environmental Quality Act (CEQA) for the TRTP. Appendix G, Section X of the CEQA guidelines provides for an evaluation of the impact of the proposed Project on mineral resources. CEQA was adopted in 1970 and applies to most public agency decisions to carry out, authorize, or approve projects that may have adverse environmental impacts. CEQA requires that agencies inform themselves about the environmental effects of their proposed actions, consider all relevant information, and provide the public an opportunity to comment on the environmental issues, and avoid or reduce potential environmental harm whenever feasible.

4.11.3.3.2 Surface Mining and Reclamation Act. The Surface Mining and Reclamation Act of 1975 (SMARA) mandated the initiation by the State Geologist of mineral land classification in order to help identify and protect mineral resources in areas within the State subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

4.11.3.3.3 California Division of Oil, Gas, and Geothermal Resources (DOGGR). The DOGGR is mandated by Section 3106 of the Public Resources Code (PRC) to supervise the drilling, operation, maintenance, and abandonment of oil wells for the purpose of preventing: damage to life, health, property, and natural resources; damage to underground and surface waters suitable for irrigation or domestic use; loss of oil, gas, or reservoir energy; and damage to oil and gas deposits by infiltrating water and other causes.

DOGGR is also charged with implementing Section 3208.1 of the PRC. The Construction-Site Plan Review Program was developed to assist local permitting agencies in identifying and reviewing the status of oil or gas wells located near or beneath structures. Before issuing building or grading permits, local agencies review and implement the DOGGR's preconstruction well requirements. Interaction between local permitting agencies and the DOGGR helps resolve land use issues and allows for responsible development in oil and gas fields.

4.11.3.4 Local Authorities and Administering Agencies[1]

4.11.3.4.1 General Plans. Elements of the General Plans for the counties and other areas through which the Project passes contain policies for the management of mineral resources. Refer to Section 4.10 (Land Use and Planning) for more information regarding applicable general plans.

Kern County. The Resource Element (Chapter 8) of the Kern County General Plan (2004) provides for the expansion of development in a manner that minimizes adverse effects on natural resource uses. Kern County produces more oil than any other county in California, and borax, cement, and construction aggregates are also major economic mineral resources. The Plan protects oilfields and mineral extraction areas through zoning and preventing encroachment of incompatible land uses.

Los Angeles County. The Conservation, Open Space and Recreation Element of the Los Angeles County General Plan (1990) aims to "protect and conserve existing mineral resources, evaluate the extent and value of additional deposits, and require future reclamation of depleted sites." The primary mineral resources present in the county are oil, rock, sand, and gravel.

San Bernardino County. The Natural Resources section of the San Bernardino County General Plan (2002) provides for recognizing and protecting mineral resources through permitting. The Plan requires buffer zones between resources and other land uses, and existing mining access routes generally have priority over proposed alterations.

4.11.4 Significance Criteria

The potential to create impacts to mineral resources is determined primarily by CEQA criteria. Based on the criteria in the Environmental Checklist Form in Appendix G of the CEQA Guidelines, a proposed project would have a potentially significant impact if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state

[1] The CPUC has primary jurisdiction over the TRTP because it authorizes the construction, operation, and maintenance of public utility facilities in the State of California. Although such projects are exempt from local land use and zoning regulations and permitting, General Order (GO) No. 131-D, Section III C requires "the utility to communicate with, and obtain the input of, local authorities regarding land use matters and obtain any non-discretionary local permits." Nonetheless, the TRTP appears consistent with local mineral resources zoning; however, any conflicts with local zoning would be less than significant due to the CPUC's jurisdiction over electric power line projects and substations and the exempt status of such projects by GO 131-D.

- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan

4.11.5 Applicant Proposed Measures

No Applicant Proposed Measures are necessary to address mineral resources, as no potentially significant impacts to mineral resources have been identified.

4.11.6 Proposed Project and Alternatives

The proposed TRTP consists of eight segments enumerated as Segment 4 through Segment 11. Segments 4, 5, and 10 involve upgrading and expanding SCE's transmission system north of SCE's Vincent Substation in order to integrate Tehachapi area wind generation to SCE's electric system. Segments 6, 7, 8, and 11 involve upgrading and expanding SCE's transmission system south of SCE's Vincent Substation in order to deliver Tehachapi area wind generation to SCE's load centers. Segment 9 involves construction, upgrading, or expanding substations along the various transmission line (T/L) routes. Descriptions of each segment are provided in Section 3.0, Project Description. In addition, the following sections assess potential Project-related impacts on a segment-by-segment basis. The mileposted T/L segments are shown on Figures P.1-2 and P.1-73 in Appendix P.

4.11.6.1 Segment 4

Segment 4 of the proposed Project consists of the following:

- Construction of two new parallel 4-mile-long single-circuit 220 kV T/Ls from a new 220 kV switching station (Cottonwind) to be permitted by an independent wind developer in Kern County to a new 500/220 kV collector substation (Whirlwind)
- Construction of a new 14-mile-long single-circuit 500 kV transmission line adjacent to existing SCE transmission right-of-way (R–O–W) from the new Whirlwind Substation to the existing SCE Antelope Substation

4.11.6.1.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 4. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include various sources within the California Department of Conservation (CDOC), including published and online references from the CGS and the DOGGR. In addition, data was obtained by reviewing U.S. Geological Survey (USGS) quadrangle maps covering the Project area.

***Sand and Gravel Resources*.** While potential sand and gravel resources are present in the project area, there are no significant current production areas in the Project area and none are anticipated in the future (Kohler, 2006).

***Oil and Minerals*.** Significant mineral resources have not been identified in the vicinity of Segment 4, however, there are mineral resources identified in the region. For example, limestone and dolomite are being mined along the flanks of the Tehachapi Mountains northwest of the alignment.

4.11.6.1.2 Impact Analysis.

***Summary of Construction/Operation Impacts*.** No potentially significant impacts to mineral resources have been identified for the proposed Segment 4. No active or planned oil and gas or sand and gravel-related production activities have been identified in the vicinity of the proposed route. Further, since the proposed Segment 4 would be constructed adjacent to the existing T/L corridor in this area, the proposed Project would not be expected to result in the loss of availability of a locally-important mineral resource recovery site, nor would it result in the loss of availability of a known mineral resource. No impacts are expected.

4.11.6.1.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.1.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.2 Segment 5

4.11.6.2.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 5. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include published and online references from the CGS and DOGGR. In addition, data were obtained from the City of Palmdale General Plan (2004), Palmdale Zoning Ordinance (1994), the City of Lancaster General Plan (2001), and by reviewing USGS quadrangle maps covering the Project area.

***Sand and Gravel Resources*.** While potential sand and gravel resources are present in the Project area, there are no significant resources identified by the State and there are no current production areas in the Project area and none are anticipated in the future (Kohler, 2006). One small sand and gravel quarry is present immediately east of the existing T/L in northern Palmdale near Segment 5 (S5) milepost (MP) 5. No significant production areas are located

in or near the Project area. The nearest large production area lies to the east in the Palmdale resource area.

***Oil and Minerals*.** Significant mineral resources have not been identified in the vicinity of Segment 5. There are no oil or gas resources identified in the eastern Transverse Ranges or the western Antelope Valley. Limestone and dolomite are being mined along the flanks of the Tehachapi Mountains northwest of the alignment.

4.11.6.2.2 Impact Analysis.

***Summary of Construction/Operation Impacts*.** No potentially significant impacts to mineral resources have been identified for the proposed Segment 5. No active or planned oil and gas or sand and gravel-related production activities have been identified in the vicinity of the proposed route. Further, since the proposed Segment 5 would be constructed within the interior of the existing T/L corridor in this area, the proposed Project would not be expected to result in the loss of availability of a locally-important mineral resource recovery site, nor would it result in the loss of availability of a known mineral resource. No impacts are expected.

4.11.6.2.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.2.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.3 Segment 6

4.11.6.3.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 6. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include published and online references from the CGS and DOGGR. In addition, data were obtained by reviewing the U.S. Department of Agriculture Land Management Plans (2005) and USGS quadrangle maps covering the Project area.

***Sand and Gravel Resources*.** No significant production areas are located in or near the Project area and none are anticipated in the future (Kohler, 2006).

***Oil and Minerals*.** The majority of the proposed Segment 6 traverses the ANF. While minerals, oil and gas, and high quality metals are present in the National Forest, no significant production areas have been identified in the study corridor. Inactive gold mines, are present near Segment 6 (S6) between S6 MP 7 and MP 11, including:

- Gold Queen, approximately 200 feet from S6 MP 7
- Falcon, approximately 2,000 feet from S6 MP 8.5
- Monte Cristo, approximately 2,500 feet from S6 MP 10.3
- Black Cargo, approximately 1,000 feet from S6 MP 10.7
- Black Crow, approximately 800 feet from S6 MP 10.9
- Gold Bar, approximately 3,000 feet from S6 MP 11

The abandoned Loomis Mine is present approximately 2 miles east of the corridor at S6 MP 10.5 (http://www.consrv.ca.gov/cgs/geologic_resources/mineral_production/index.htm).

4.11.6.3.2 Impact Analysis.

***Summary of Construction/Operation Impacts*.** No potentially significant impacts to mineral resources have been identified for proposed Segment 6. No active or planned oil and gas or sand and gravel related production activities have been identified in the vicinity of proposed route. Further, since the proposed Segment 6 would be constructed along an existing T/L corridor in this area, the proposed Project would not be expected to result in the loss of availability of a locally-important mineral resource recovery site, nor would it result in the loss of availability of a known mineral resource. No impacts are expected.

4.11.6.3.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.3.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.4 Segment 7

4.11.6.4.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 7. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include published and online references from the CGS and DOGGR. In addition, data were obtained from the City of Bradbury General Plan (1993), City of Duarte Comprehensive General Plan (2006), Azusa General Plan (2004), City of Irwindale General Plan Program (1973), City of Monrovia General Plan (2002), City of Baldwin Park 2020 General Plan (2002), City of El Monte General Plan (1991), City of South El Monte General Plan (2000), City of Rosemead General Plan (1987), and San Gabriel General Plan (2004), and by reviewing USGS quadrangle maps covering the Project area.

***Sand and Gravel Resources*.** Segment 7 follows the San Gabriel River Valley along the majority of the proposed alignment, where significant sand and gravel mining has occurred and continues to occur. The alignment is within a major Mineral Resource Zone. The majority of the mining is concentrated in the northern part of the alignment, where the San Gabriel Mountains transition to the river valley, in the vicinity of Azusa, Duarte, and Irwindale. The Azusa production area has a 50-year demand of more than 800 million tons (Kohler, 2006). Azusa has three active mining pits for Aggregate and Portland Cement Concrete. Azusa Rock Mine and Reliance Azusa Mine are operated by Vulcan Materials, and are near the edge of the study corridor between Segment 7 (S7) MP 0 and 2. A third is operated by Cemex and is about 3,000 feet east of the corridor near S7 MP 3. Several other active and abandoned sand and gravel pits are present in Duarte and Irwindale. While the use of mineral deposits is encouraged to promote economic growth, permits and restrictions on mining are expected in the future, and redevelopment of closed mines will be emphasized.

As Segment 7 continues south into Baldwin Park and beyond, significant mineral resources (aggregate) are still present (as MRZ-2). However, these areas are fully built up and the applicable General Plans do not provide for mining. Further south and east into South El Monte, the availability of mineral resources decreases. Other than the Azusa resource area, no significant production areas are located in or near the Project area and none are anticipated in the future (Kohler, 2006).

***Oil and Minerals*.** At the southwestern end of the alignment in the northeast hills of Montebello, several oil leases are operated in the Montebello Oil Field (DOGGR, 2005). Other significant mineral resources have not been identified in the vicinity of Segment 7.

4.11.6.4.2 Impact Analysis.

***Summary of Construction/Operation Impacts*.** No potentially significant impacts to mineral resources have been identified for proposed Segment 7. No active or planned oil and gas related production activities have been identified in the vicinity of proposed route. Sand, gravel, and cement production is common in the area, however, active mining is not occurring within the area of the proposed alignment. Further, since the proposed Segment 7 would be constructed adjacent to the existing T/L corridor in this area, the proposed Project would not be expected to result in the loss of availability of a locally-important mineral resource recovery site, nor would it result in the loss of availability of a known mineral resource. No impacts are expected.

4.11.6.4.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.4.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.5 Segment 8

4.11.6.5.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 8 (A, B, and C) of the proposed TRTP. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include published and online references from the CGS and DOGGR. In addition, data were obtained from City of Monterey Park General Plan (2001), City of Rosemead General Plan (1987), City of South El Monte General Plan (2000), Hacienda Heights Community General Plan (1978), City of La Habra Heights General Plan (2004), Rowland Heights Community General Plan (1981), City of Chino Hills General Plan (1994), and City of Chino General Plan (1990), and by reviewing USGS quadrangle maps covering the project area.

Sand and Gravel Resources. No significant production areas are located in or near the project area and none are anticipated in the future (Kohler, 2006). The majority of Segment 8 traverses the La Puente Hills, where there is little rock/sand/gravel for extraction. Most of the City of Chino, along the eastern portion of the proposed alignment, is zoned as MRZ-3 (mineral significance not known).

Oil and Minerals. The proposed alignment begins on its western end in Montebello and Monterey Park. Monterey Park is primarily a built-out urban community with few natural resources. In the northeast hills of Montebello, however, several oil leases are operated in the Montebello Oil Field, through which the proposed Project passes (DOGGR, 2005). The alignment continues west into the flatter alluvial plain area of South El Monte, which is completely built-out and does not have significant mineral resource potential. Near Segment 8A (S8A) MP 5, the alignment climbs again into La Puente Hills, a significant oil producing area. Oil extraction has occurred along the southern boundary of Hacienda Heights (near MPs S8A 9 and 10). These oil fields have been abandoned, however, they could be reopened for economic reasons. There is continued production in the Whittier Oil Field to the south of the study corridor. No precious mineral deposits are present in Hacienda Heights. Further east in La Habra Heights, significant oil and gas production is occurring in the Sansinena Oil Field (DOGGR, 2003). In Rowland Heights, near S8A MP 13 and 14, the Puente Hills area of the Brea-Olinda Oil Field is present within the study corridor (DOGGR, 2005). The majority of the wells in this area have been abandoned, although some production continues. Rowland Heights will allow continued and new oil production, however as the resource is depleted, the area will be preserved as open space or will be developed for residential use. Further east in Chino Hills, existing oil production is planned to continue, although the

production area is concentrated south of the T/L alignment (DOGGR, 2005). There are generally no significant mineral deposits in the Puente Hills. The oil resources do not continue east from Chino Hills, where the alignment transitions into the valley.

4.11.6.5.2 Impact Analysis.

***Summary of Construction/Operation Impacts*.** No potentially significant impacts to mineral resources have been identified for the proposed Segment 8. Other than the oil wells near the alignment in La Puente Hills and Montebello Hills, no active or planned oil and gas or sand and gravel-related production activities have been identified in the vicinity of proposed route. In this area, the proposed Project would not be expected to result in the loss of availability of a locally-important mineral resource recovery site, nor would it result in the loss of availability of a known mineral resource.

4.11.6.5.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.5.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.6 Segment 9

4.11.6.6.1 Environmental Setting. Mineral resources in the vicinity of the existing and proposed substations are addressed in the adjacent T/L segment discussions. Specifically, the proposed Whirlwind Substation in Segment 9 is associated with Segments 4 and 10; the Antelope and Vincent substations are located at the north and south ends of Segment 5; the Mesa Substation is located at the intersection of Segments 7, 8, and 11; the Gould Substation is associated with Segment 11; and the Mira Loma Substation is at the eastern terminus of Segment 8 (A, B, and C).

4.11.6.6.2 Impact Analysis. No potentially significant impacts to mineral resources have been identified for the proposed Segment 9 elements. Further discussion is provided in the individual segment section discussions identified above.

4.11.6.6.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.6.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.7 Segment 10

4.11.6.7.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 10 (including Alternatives 10A and 10B) of the proposed TRTP. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include published and online references from the CGS and DOGGR. Data was also obtained from the California Division of Mines and Geology publication, "Mines and Mineral Resources of Kern County California" (1962), and by reviewing USGS quadrangle maps covering the Project area.

Sand and Gravel Resources. While potential sand and gravel resources are present in the Project area, there are no significant resources identified by the State and there are no current production areas in the Project area and none are anticipated in the future (Kohler, 2006). A small inactive gravel pit is present within the study corridor near Segment 10 (S10) MP 2.

Oil and Minerals. There are mineral resources identified in the vicinity of Segment 10. The Rosamond Hills are east of the route; gold and uranium resources have been mined from this area in the past. Gold is still listed as a principal mineral resource in this area; uranium is not (CGS, 2000). Uranium and gold are extracted from the Middle Buttes Mines (some inactive), located approximately 2 miles east of the route at S10 MP 6.7. Limestone and dolomite are being mined along the flanks of the Tehachapi Mountains north and west of the alignments. Limestone quarries are located adjacent to the Cal Cement facility, which is located approximately 1.1 miles northwest of the route at S10 MP 1.8, near the proposed Windhub Substation (addressed in previous PEA for Antelope Segments 2 and 3). None of the aforementioned mineral resource extraction areas are located in the immediate vicinity of proposed or alternate Segment 10 T/L routes.

4.11.6.7.2 Impact Analysis.

Summary of Construction/Operation Impacts. No potentially significant impacts to mineral resources have been identified for the proposed Segment 10. No active or planned oil and gas or sand and gravel related production activities have been identified in the immediate vicinity of proposed route. The proposed Project is not expected to result in the loss of availability of a locally-important mineral resource recovery site, nor will it result in the loss of availability of a known mineral resource.

4.11.6.7.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.7.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.6.8 Segment 11

4.11.6.8.1 Environmental Setting. This section presents existing conditions for mineral resources in the proposed Project area for Segment 11 of the proposed TRTP. Existing conditions were determined from review of available published and unpublished literature and online sources. Sources of information include published and online references from the CGS and DOGGR. In addition, data were obtained from the U.S. Department of Agriculture Land Management Plans (2005), City of Sierra Madre General Plan (1996), City of Monterey Park General Plan (2001), and by reviewing USGS quadrangle maps covering the Project area.

The northern portion of the Segment 11 alignment traverses the ANF, while the southern portion crosses the highly developed cities and communities of La Canada Flintridge, Altadena, Pasadena, Sierra Madre, San Marino, Arcadia, San Gabriel, Temple City, Rosemead, El Monte, and Monterey Park.

Sand and Gravel Resources. No significant aggregate production areas are located in or near the Project area and none are anticipated in the future (Kohler, 2006).

Oil and Minerals. Much of the proposed Segment 11 traverses the ANF. While minerals, oil and gas, and high quality metals are present in the National Forest, no significant production areas have been identified in the study corridor. There are limited available natural resources within the built-out urban communities along the southern portion of the alignment, and the southern portion does not involve new T/L construction (i.e., only installing conductor on vacant posting on existing towers). Immediately south of the southwestern terminus of the alignment in the northeast hills of Montebello, several oil leases are operated in the Montebello Oil Field, although most wells have been abandoned (DOGGR, 2005).

4.11.6.8.2 Impact Analysis.

Summary of Construction/Operation Impacts. No potentially significant impacts to mineral resources have been identified for proposed Segment 11. No active or planned oil and gas or sand and gravel-related production activities have been identified in the vicinity of proposed route. Further, since the proposed Segment 11 would be constructed along an existing T/L corridor in this area, the proposed Project would not be expected to result in the loss of availability of a locally-important mineral resource recovery site, nor would it result in the loss of availability of a known mineral resource.

4.11.6.8.3 Mitigation Measures. Since no impacts to mineral resources have been identified, no mitigation measures are required.

4.11.6.8.4 Impact Significance after Mitigation Measure Application. No impacts to mineral resources are expected.

4.11.7 References

California Division of Mines and Geology (CDMG, now known as the California Geological Survey). 1962. Mines and Mineral Resources of Kern County, California. County Report 1.

California Geological Survey (CGS). 2000. California: Principal Mineral Producing Localities, 1990-2000.

City of Lancaster. 2001. General Plan.

DOGGR (Division of Oil, Gas, and Geothermal Resources). 2005. Review of online oil and gas and geothermal maps, accessed July 2006. http://www.consrv.ca.gov/DOG/

2003. Urban Development of Oil Fields in the Los Angeles Basin Area, 1983-2001. By Mark T. Gamache and Paul L. Frost.

Kohler, S. 2006. Map Sheet 52, Aggregate Availability in California. California Department of Conservation, California Geological Survey.

U.S. Department of Agriculture, Forest Service. 1987. Angeles National Forest, Land and Resources Management Plan. USDA Forest Service, Pacific Southwest Region, Arcadia, California.

2005. Land Management Plan, Part 1 Southern California National Forests Vision.

U.S. Department of the Interior, Bureau of Land Management (BLM). 2006. Resource Management Plans for California's Public Lands.