B.3.16 Transportation/Traffic

TRANSPORTATION AND TRAFFIC Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e. Result in inadequate emergency access?	☐	☒	☐	☐
f. Conflict with adopted policies, plans, or programs supporting regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☒	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

B.3.16.1 Setting

The proposed Downs Substation expansion and the proposed looped 115-kV subtransmission lines are located at the intersection of Ridgecrest Boulevard and Downs Street in the city of Ridgecrest. The proposed fiber optic telecommunication cable route travels through both urban and rural areas of the city of Ridgecrest within Kern County and the communities of Argus and Trona within San Bernardino County. Linear facilities associated with the Proposed Project traverse and follow both regional highways and local roadways. Figure B-11 (Overview of the Proposed Fiber Optic Telecommunication Cable Route) in Section B.1, Project Description, depicts the existing roadways in the Project vicinity.

Highways

State Route (SR) 14 and U.S. Highway 395 are north-south highways providing regional access through the city of Ridgecrest and the surrounding areas. SR 178 provides east-west service through the city of Ridgecrest and into the communities of Argus and Trona. Table B.3.16-1 describes the current conditions of these roadways in the Project area.

Table B.3.16-1. 2010 Highway Characteristics

Roadway Name	Physical Description	Average Daily Traffic Volume	Highest A.M. Peak Hour Volume	Mid-Day Peak Hour Volume	Highest P.M. Peak Hour Volume
SR 14	Asphalt paved; 2 lanes per way, with a road shoulder on both NB and SB lanes	SB: 3,400 NB: 3,100	SB: 318	N/A	SB: 451
SR 178	Asphalt paved; 2 lanes per way with a center divider. Road shoulder on both WB and EB lanes.	WB: 7,100 EB: 7,500	EB: 1307	N/A	EB: 1365
U.S. Highway 395	Asphalt paved; total 2 lanes (1 lane per way), with road shoulders on both sides of the road.	SB: 2,850 NB: 2,750	SB: 239	N/A	SB: 299

Notes: NB: Northbound, SB: Southbound, EB: Eastbound, WB: Westbound; N/A: data unavailable
Source: SCE, 2010c.

Arterial Roads

A number of local area roadways would be utilized by Project construction-related traffic and are located adjacent to Project linear facilities in both the city of Ridgecrest and Argus/Trona areas. A visual inventory of these local roadways indicates they are mostly two lane arterials providing vehicular access to occupied portions of the area. As the proposed substation expansion would account for the focal point of construction activities, Table B.3.16-2 describes the current conditions of both Ridgecrest Boulevard and Downs Street within the city of Ridgecrest. These roads represent the primary local access route to the substation expansion area.

Table B.3.16-2. 2010 Arterial Roadway Characteristics

Roadway Name	Physical Description	Average Daily Traffic Volume	Highest A.M. Peak Hour Volume	Mid-Day Peak Hour Volume	Highest P.M. Peak Hour Volume
Ridgecrest Blvd.	110-foot wide divided arterial running east-west. Asphalt paved; total 2 lanes (1 lane per way), with road shoulders on both sides of the road.	9,457	1,037	2,155	2,246
Downs St.	90-foot wide secondary arterial running north-south. North of Ridgecrest Blvd, Downs Street is asphalt paved; 2 lanes per way with a center divider. Road shoulder on both WB and EB lanes. South of Ridgecrest Blvd, Downs Street converges into 2 lanes (1 lane per way) paved asphalt, with road shoulders on both sides of the road.	9,878	1,238	1,780	2,446

Source: SCE, 2010c.

Mass Transit

Transportation in the Project area is dominated by personal vehicle automobile travel. Due to the geographically dispersed population in the region, public transportation is rudimentary: Kern Regional Transit operates the Mojave-Ridgecrest bus route, which provides twice daily service between the communities of Ridgecrest, Inyokern, California City and Mojave on Mondays, Wednesdays and Fridays; the city of Ridgecrest operates a dial-a-ride service for seniors and persons with disabilities; and the city

of Barstow administers the operation of a San Bernardino County-supported specialized transportation service for seniors and persons with disabilities in Trona (SCE, 2010a).

Rail

In the Project area, existing rail lines are limited to the Trona/Argus area, which is served by commercial rail service to export mining products to market. The Trona railway is a 30.5-mile north-south shortline railroad owned by Searles Valley Minerals interchanging with the Union Pacific Railroad line in the community of Searles (Wikipedia, 2011).

Bicycle

Bicycle paths, bicycle lanes, and sidewalks provide safe routes for non-motorized transport. The majority of thoroughfare arterial streets within the city of Ridgecrest are designated as having Class II bike lanes within the 2008 city of Ridgecrest General Plan, including Downs Street, Ridgecrest Boulevard, and China Lake Boulevard (City of Ridgecrest, 1994). Additionally, the General Plan identifies a number of local streets as having proposed Class II bike lanes.

Air Transportation

Several airports are located in the Project area. Inyokern Airport (public) is located 1.5 miles west of the westernmost segment of the proposed telecommunication route within Kern County, while China Lakes Naval Weapons Center Airport (private military) is located 2.2 miles north of the northernmost segment of the proposed telecommunication cable route within the city of Ridgecrest. Additionally, Trona Airport (public) is located 2.5 miles northeast of the northernmost segment of the proposed telecommunication cable route in Trona.

Permits and Approvals Necessary

California Department of Transportation (Caltrans). The Applicant, SCE, would need to apply for and obtain a Caltrans Transportation Permit for movement of vehicles that may qualify as an oversized or excessive load or for transportation of oversized or excessive loads. This permit would determine a specific route for the shipper to follow from origin to destination.

SCE currently has three separate right-of-way (ROW) grants that, taken together, authorize the existing subtransmission lines from SCE's Ridgecrest Service Center, Searles Substation, McGen Substation, and Inyokern Substation. These ROW grants also authorized the construction, operation, and maintenance of the existing access roads. In order to install the proposed fiber optic telecommunication cable to the existing 115-kV subtransmission poles, the BLM Ridgecrest Field Office requested that applications be submitted to consolidate the three separate grants into one consolidated grant (SCE, 2011). A Decision Letter, dated 2/18/2011, from Hector A. Villalobos, Ridgecrest BLM Field Manager, was sent to SCE authorizing the fiber optic telecommunication cable to be installed under the existing ROW grants, subject to two conditions: 1) a clearance document from the California Department of Fish and Game for the Mohave Ground Squirrel be obtained; 2) an encroachment permit from Caltrans be obtained for the one pole located on BLM-administered public land (BLM, 2011). It has been confirmed that the single pole to be replaced under the Proposed Project is located within a franchise from San Bernardino County, and therefore does not require an encroachment permit from Caltrans (SCE, 2011). However, an encroachment permit may be needed for temporary lane closures/disruptions during fiber optic telecommunication cable stringing activities that may obstruct traffic on U.S Highway 395 and SR 178.

Local Agencies. SCE would need to apply to Kern County, San Bernardino County, and the city of Ridgecrest for transportation permits allowing movement of oversized or excessive loads. An encroachment permit may also be needed for: (1) temporary positioning of oversized vehicles in order to deliver equipment or materials to the construction site; and (2) temporary lane closures/disruptions during fiber optic telecommunication cable stringing activities and 115-kV subtransmission line and pole construction/replacement that may obstruct traffic on through roads. SCE would be required to obtain necessary city of Ridgecrest permits for the construction of a new access driveway at the Downs Substation expansion site.

B.3.16.2 Environmental Impacts and Mitigation Measures

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Construction. Project construction activities would generate approximately 65 truck trips per day during construction (SCE, 2010c). Quantitative information regarding the timing and routing of daily truck movements is unavailable at this time pending final engineering and scheduling. It is assumed construction materials and equipment would likely be moved to work locations in the mornings, and waste materials would likely be removed from the locations in the evenings (SCE, 2010c). Excavated materials may be hauled throughout the day depending upon the timing of activities. Additionally, construction related vehicle trips would be associated with daily workers. As described in Section B.1.11.1, All Components, it is estimated that a total of approximately 15 to 25 construction personnel would be working on any given day. It is assumed that workers would generate a maximum of 50 daily vehicle trips, with 25 occurring in the morning and 25 occurring in the evening, correlating with the start and end of each workers daily shift.

The temporary traffic-related trip increase during construction (assumed maximum of 115 trips per day) would account for a minimal increase over average daily volumes along the utilized roadways and freeways presented in Tables B.3.16-1 and B.3.16-2. Furthermore, as described above, construction-related trips would be distributed throughout the day, with worker truck trips occurring between worker arrival and departure times. Therefore, based on the number and distribution of daily vehicle trips generated by construction, the Proposed Project would have a less-than-significant impact on the performance of the circulation system.

Installation and replacement of poles, subtransmission line, and fiber optic telecommunication cable would require temporary lane closures. Table B.3.16-3 identifies roadways on which temporary lane closures are assumed to be necessary during construction.

Temporary closure of travel lanes could impact the performance of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit function. By law, SCE would be required to obtain encroachment permits from the local jurisdictions and Caltrans, as appropriate, for construction activities that would encroach within any public rights-of-way or easement. As obtaining encroachment permits does not ensure minimizing potential construction impacts to the performance of the circulation system, Mitigation Measure T-1 (Prepare Construction Traffic Control Plan and Implementation Program) would be implemented to

reduce transportation impacts from temporary lane closures and circulation system disruptions to a less-than-significant level.

Table B.3.16-3. Temporary Lane Closures Associated with Subtransmission and Telecommunication Infrastructure Installation

Roadways in the Ridgecrest Area	Roadways in the Argus/Trona Area
• Downs Street between Church Avenue and Ridgecrest Boulevard • Ridgecrest Boulevard between Downs Street and Jacks Ranch Road • Jacks Ranch Road between Ridgecrest Boulevard and Inyokern Boulevard • Inyokern Boulevard (Highway 178) between Jacks Ranch Road and the Inyokern Substation (near Highway 395) • Church Avenue between Downs Street and San Bernardino Boulevard • San Bernardino Boulevard between Church Avenue and Ridgecrest Boulevard (Highway 178) • Springer Avenue between the vicinity of Jacks Ranch Road and the vicinity of San Bernardino Boulevard (all portions of Springer Avenue where residences are present)	• Trona Road/Highway 178 between approximately Beech Road and the vicinity of 1st Avenue • 1st Street between the vicinity of Trona Dump Road and H Street • H Street between 1st and 5th Streets • B Street between 4th and 7th Streets • 7th Street between A Street and Acacia Street • Acacia Street between Highway 178 and 7th Street

Source: SCE, 2010c.

Temporary traffic slowdowns may occur while large slow-moving equipment is moved over public roadways to the construction sites. By law, the heavy loads would require SCE to obtain transportation permits from the local jurisdictions and Caltrans, as appropriate. Typical stipulations of each transportation permit would be to designate the haul routes to be taken, require a traffic control service to be used, and require SCE to repair any damage caused to any restricted load limited streets. As SCE would obtain and adhere to all necessary transportation related permits, impacts related to congestion and potential roadway damage caused by Project-related truck traffic is considered to be less than significant.

In summary, considering the short-term and temporary nature of the construction activities and the recommended mitigation measures, transportation impacts during construction would be less-than-significant.

Operation. As discussed in Section B.1.12, Operation and Maintenance, during operation of the proposed substation work crews would only visit the substation two to three times per month for routine maintenance. As such, the permanent increase in traffic would not be substantial when compared to average daily volumes along the utilized roadways and freeways presented in Tables B.3.16-1 and B.3.16-2. In the event maintenance or emergency repairs required temporary lane closures or oversized loads, it is assumed SCE would obtain all required permits (if necessary) for these activities. Therefore, project operation would result in a less-than-significant impact on the performance of the circulation system.

Mitigation Measure for Construction Traffic

T-1 **Prepare Construction Traffic Control Plan and Implementation Program.** SCE shall consult with Kern County, San Bernardino County, Caltrans, the city of Ridgecrest, as well as Searles

Valley Minerals and Union Pacific Railroad companies (for active rail line crossings) and prepare and submit for approval by all permitting jurisdictions a Construction Traffic Control Plan and Implementation Program. The Plan must be prepared in accordance with Caltrans Manual on Uniform Traffic Control Devices, WATCH Manual (the WATCH Manual is the Work Area Traffic Control Handbook published by BNI Publications, Inc.), and California Joint Utility Traffic Control Committee Work Area Protection and Traffic Control Manual; and must include but not be limited to the following:

- Specification of temporary closure of travel lanes or disruptions to street segments, intersections, bike lanes, pedestrian facilities, public transportation bus stops, or rail line operations during subtransmission and telecommunication line stringing activities, pole replacement, or any other utility tie ins or construction-related activity.
- Timing of heavy equipment and building materials deliveries.
- Specification of construction-related haul routes, avoiding residential neighborhoods to the maximum extent feasible, and including the estimated number and frequency of trips, and the proposed schedule of hauling.
- Redirecting construction traffic with a flag person or temporary restriping, if required.
- Signing, lighting, and traffic control device placement, if required.
- Ensurance of access for emergency vehicles into the project site and through any construction-related temporary travel lane closures or disruptions.
- Ensurance of pedestrian and bicycle safety from construction vehicle travel routes and any construction-related temporary travel lane closures or disruptions.
- Procedures for exiting and entering all work sites.
- Ensurance of access to residential and/or commercial property located near subtransmission and telecommunication line routes or any other utility tie-ins or construction-related temporary travel lane closures or disruptions.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

LESS THAN SIGNIFICANT. The flow of traffic is frequently described using the Level of Service (LOS) scale, which is a qualitative measurement of operational characteristics of traffic flow on a roadway or at the intersection of roadways, based on traffic volumes and facility type. Traffic operations are described in a qualitative manner using levels ranging from "A" to "F", with "A" representing the highest LOS. In determining the qualitative measure assigned to a facility or intersection, the following characteristics are considered: speed, delay, maneuverability, driver comfort, and convenience. LOS can be used in transportation planning to determine appropriate sizes for facilities and identify impacts of Projects. In general, the following descriptions apply to the qualitative levels described above: "A" – free flow; "B" – reasonably free flow; "C" – stable flow; "D" – approaching unstable flow; "E" – unstable flow; and "F" – forced or breakdown flow (gridlock).

The SR 178 Transportation Concept Report dated May 2006 states that the "concept" LOS for SR 178 is "C" except for the urbanizing segment in the city of Ridgecrest (SCE, 2010). The 2011 Kern Draft Regional Transportation Plan (RTP) identifies the "minimum" LOS within Kern County shall be no lower than LOS "E" as part of the Kern County Congestion Management Plan (SCE, 2010a). The 2007 San Bernardino

County Congestion Management Plan (CMP) established by San Bernardino Associated Governments states that the LOS standard for the CMP roadway system shall be "E" for all segments and intersections except for those designated LOS "F" (SCE, 2010a). The San Bernardino CMP states that any project meeting the CMP threshold of 250 two-way peak hour trips that expects to add at least 50 peak hour trips to a State highway facility is required to prepare a Traffic Impact Analysis (TIA) report (SCE, 2010a). The city of Ridgecrest's General Plan 2010 Circulation Element Goal C-2.4, Level of Service for Local Streets and Intersections, notes that the city of Ridgecrest shall strive to maintain LOS "C" or better for both daily and peak hour conditions (SCE, 2010a).

As described above in Section 3.16(a), both construction and operation of the Proposed Project would not generate average daily traffic volumes expected to impact an existing LOS or interfere with the performance standards of any applicable CMP or other standards established by the applicable jurisdiction for roads or highways utilized by the Project. Furthermore, the volume of daily peak hour traffic associated with the Project would not warrant a TIA per the San Bernardino County CMP standards. Therefore, while the Proposed Project would generate traffic during construction and operation, these volumes are considered less than significant with regards to impacting an established CMP performance standard.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

NO IMPACT. As described earlier, the proposed substation expansion site and linear routes are in proximity to three airport facilities. As described in Section B.1.10.1, Downs Substation Expansion, and Section B.1.10.8, 115-kV Subtransmission Line Description, the tallest Project facilities would be 35 feet and 80 feet above grade for the substation and 115-kV subtransmission line, respectively. Based on these heights and the distance to the airport facilities, the Project would not be subject to Federal Aviation Administration (FAA) 7460 requirements pertaining to project related infrastructure hazards to navigable airspace (FAA, 2011) and would not pose any impact to existing air traffic patterns or use of public and private airport facilities.

d. Would the project substantially increase hazards because of a design feature or incompatible uses?

LESS THAN SIGNIFICANT. As described in Section B.1.10.1, Downs Substation Expansion, new roadway features associated with the Proposed Project would be limited to a new access driveway to the Downs Substation from Ridgecrest Boulevard. This new driveway, which would be paved with asphalt cement, would be 24 feet wide and extend approximately 55 feet from Ridgecrest Boulevard to the Downs Substation entry gate. The entry gate would be automated. With regards to the Project's linear facilities, access and spur roads are found along the entirety of the existing subtransmission and telecommunication cable line route (SCE, 2010c). SCE conducts maintenance along these access and spur roads on a periodic basis (SCE, 2010c). As discussed in Section B.1.11.3, Overhead 115-kV Subtransmission Line Construction, approximately 1,000 feet of new access road would be constructed adjacent to the modified 115-kV subtransmission line route (Inyokern-MGen-Searles No.2 115-kV line) in the vicinity of the Downs Substation. This road would be private with a minimum drivable width of 14 feet with 2 feet of shoulder on each side and turnaround areas near the structure locations. SCE would obtain all necessary permits required by the city of Ridgecrest and any other jurisdiction for construction of the driveway and new access road. As a result, the Proposed Project would not introduce any transportation facilities that could increase hazards from a design feature or incompatible use. Less-than-significant impacts regarding new roadway facilities substantially increasing hazards would occur.

e. Would the project result in inadequate emergency access?

LESS THAN SIGNFICANT WITH MITIGATION INCORPORATED. As described above in Section 3.16(a), construction would result in temporary closure of travel lanes and oversize vehicle trips that could impact the performance of the circulation system, including disrupting emergency access to and through the Project area. In order to ensure that all construction activities result in less-than-significant impacts to emergency access, Mitigation Measure T-1 (Prepare Construction Traffic Control Plan and Implementation Program) would be implemented to reduce access impacts from construction. Furthermore, SCE would obtain encroachment permits from the local jurisdictions and Caltrans, as appropriate, for construction activities that would encroach within any public rights-of-way or easement.

Mitigation Measure for Emergency Access

T-1 **Prepare Construction Traffic Control Plan and Implementation Program** (see full text above)

f. Conflict with adopted policies, plans, or programs supporting regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

LESS THAN SIGNFICANT WITH MITIGATION INCORPORATED. As described above in Section 3.16(a), construction would result in temporary closure of travel lanes and oversize vehicle trips that could impact the performance of the circulation system, including disrupting bicycle lanes, pedestrian facilities, rail lines, and public bus functions within the Project area. In order to ensure that all construction activities result in less-than-significant impacts to these transportation modes, Mitigation Measure T-1 (Prepare Construction Traffic Control Plan and Implementation Program) would be implemented to reduce transportation impacts from construction. Furthermore, SCE would obtain encroachment permits from the local jurisdictions and Caltrans, as appropriate, for construction activities that would encroach within any public rights-of-way or easement.

Mitigation Measure for Bicycle, Pedestrian, Rail, and Public Transit Facilities

T-1 **Prepare Construction Traffic Control Plan and Implementation Program** (see full text above)