Chapter 19 Transportation and Traffic

### 19.1 Overview

This chapter summarizes the environmental and regulatory settings related to traffic and transportation, the findings of the traffic and transportation analysis, and presents impact analysis methodology and thresholds. On this basis, the section evaluates the potential traffic impacts associated with the Proposed Project.

## 19.1.1 Traffic and Transportation Terminology

Following are definitions of key traffic and transportation terms used in this section, based on the Highway Capacity Manual, 4th edition (Transportation Research Board 2000), and the Mobility Element of the San Diego County General Plan (County of San Diego 2011a).

**Level of Service** – a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. Roadway level of service (LOS) is defined according to methodologies presented in the Highway Capacity Manual (Transportation Research Board 2000). Using the Highway Capacity Manual procedures, the quality of traffic operation is graded using six designations, LOS A through F, as indicated in Table 19-1.

**Mobility Element roads** – These roads are County-maintained roads shown on the Mobility Element map and adopted in the General Plan. They provide for the movement of people and goods between and within communities in the County. The Mobility Element displays these roads showing both the road classification and its general alignment.

**Light Collector Series** – These Mobility Element roads have a lower design speed and wider parkway. Light Collector roads can be used in rural areas with medium physical constraints or in urbanized areas with moderate levels of non-motorized circulation.

**Light Collector with Reduced Shoulder** – These Light Collector roads have a roadway with two-foot shoulder, a rolled curb with graded pathway, and a narrow right-of-way. In some instances, the shoulder can be widened to six feet to serve as a bicycle lane.

**Local public roads** – These roads are County-maintained roads that feed traffic onto Mobility Element roads. These roads are not adopted in the General Plan; therefore, deviations from planned networks do not require a general plan amendment.

5

6

7

8

9

10

11

12

13 14

15

16

17

#### 1 Table 19-1. Level of Service Descriptions

Level of Service	Description
А	This LOS represents a completely free-flow conditions, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
В	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
С	At this LOS the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues forms behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

Sources: Transportation Research Board 2000; San Diego County 2011a.

# 3 19.2 Regulatory Setting

# 4 19.2.1 Federal Laws, Regulations, and Policies

#### **Federal Aviation Administration**

Under 14 Code of Federal Regulations (CFR) Part 77.9, projects must notify the Federal Aviation Administration (FAA) of construction or alteration that involves the following:

- Any construction or alteration that is more than 200 feet above ground level.
- Any construction or alteration located at specified distances from an airport runway, at heights determined based on slope ratios identified in 14 CFR Part 77.9(b).
- Any highway, railroad, or other traverse way, which, if adjusted upward by specified vertical distances, would exceed a standard identified in 14 CFR Part 77.9(a) or (b).
- Any construction or alteration on airports and heliports as described in 14 CFR Part 77.9(d).

# 19.2.2 State Laws, Regulations, and Policies

The California Department of Transportation (Caltrans) manages the State highway system and ramp interchange intersections. The State agency is also responsible for highway, bridge,

and rail transportation planning, construction, and maintenance. Caltrans also requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code. Due to the likelihood of heavy truck loads, the Proposed Project may require ministerial transportation permits from Caltrans.

California Vehicle Code (CVC) Section 21200 allows bicyclists the same rights and responsibilities as drivers of motor vehicles. CVC Section 21956 allows pedestrians to walk in roadways within a business or residential district. Outside of business and residential districts, a pedestrian may walk close to his or her left-hand edge of the roadway, or, if there is no means of safely crossing the roadway, a pedestrian may walk close to his or her right-hand edge of the roadway.

### 19.2.3 Local Laws, Regulations, and Policies

The California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting and design of electric transmission facilities. Therefore, it is exempt from local land use and zoning regulations. However, CPUC General Order (G.O.) 131-D states that in locating electric transmission facilities, the public utilities shall consult with the local agencies regarding land use matters. CPUC and NEET West have been in contact with applicable local agencies for the Proposed Project, and local laws and regulations are presented here for consideration of potential impacts related to transportation and traffic.

#### San Diego County General Plan

The Mobility Element of the San Diego County General Plan (County of San Diego 2011a) provides the framework for San Diego County decisions concerning the countywide transportation system. It also provides for coordination with the cities and unincorporated communities within the County with the Regional Transportation Plan (RTP), adopted by the San Diego Association of Governments (SANDAG), and with State and federal agencies that fund and manage transportation facilities within the County.

#### **Alpine Community Plan**

The Alpine Community Plan implements the Goals and Policies of the County General Plan for the Alpine area. The Mobility Element of the Alpine Community Plan has the goal of establishing a circulation system of streets and roads which will serve the general convenience and safety of Alpine citizens and enhance the beauty, quality and atmosphere of the Alpine area (San Diego County 2011b). The Alpine Mobility Element Network map (San Diego County 2011c) identifies transportation facilities, including roadway classifications in the Alpine area. The following policies and recommendations in the Mobility Element may be relevant to the Proposed Project:

- Policy 1: Support timely and adequate public notification and review of all proposed changes in the community circulation system.
- Policy 3: Encourage the consideration of all feasible alternatives for dealing with congested roads.

• Policy 10: Road design within the community shall minimize grading and also be compatible with the topography and landscape of the Alpine Area.

# 19.3 Environmental Setting

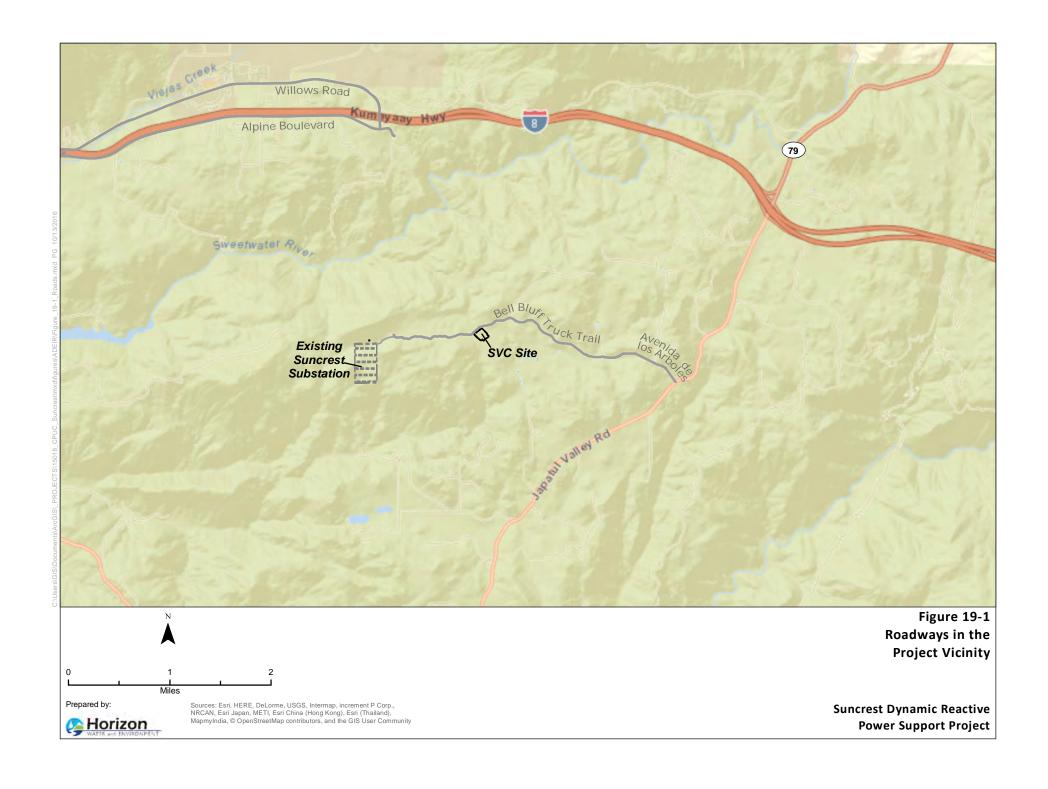
A description of the transportation network and available traffic count data are provided below.

### **Transportation Network**

As shown in Figure 19-1, the Proposed Project site is located off of Bell Bluff Truck Trail, a private, paved road that runs generally parallel to, and is located approximately 1.8 miles south of, Interstate 8 (I-8). In the area of the Proposed Project, Bell Bluff Truck Trail is a secured road. Approximately one mile east of the proposed Static VAR compensator (SVC) site, there is a security gate operated by San Diego Gas & Electric (SDG&E) restricting public access to the existing substation site. Bell Bluff Truck Trail is approximately 30 feet wide from the proposed SVC site west to the intersection with the access road to the existing Suncrest Substation (this portion of the road was widened and newly constructed as part of the Suncrest Substation access road. During construction and operations of the Proposed Project, vehicles would generally access the site from I-8 via the interchange with State Route 79 and Japatul Valley Road; this interchange is the southern terminus of State Route (SR) 79 (Caltrans 2011). From the interchange, vehicles would travel south on Japatul Valley Road, and turn right (east) on Avenida de los Arboles, which connects with Bell Bluff Truck Trail.

West of SDG&E's existing 230-kilovolt transmission line (which crosses over Bell Bluff Truck Trail to connect existing Suncrest Substation), Bell Bluff Truck Trail transitions from a paved road to a dirt/gravel road. SDG&E maintains Bell Bluff Truck Trail, including the roadway segment east of the security gate approaching Avenida de los Arboles, where it provides access to several residences and trails, and the roadway segment west of the security gate, in which Bell Bluff Truck Trail is closed to the public.

- Avenida de los Arboles is a paved local road that connects Bell Bluff Truck Trail to Japatul Valley Road.
- Japatul Valley Road is a north-south light collector road with reduced shoulder (San Diego County 2011b), which connects to I-8 and the south terminus of SR 79 at an interchange approximately 1.8 miles north of its intersection with Avenida de los Arboles.
- I-8 is an east-west limited access freeway on the federal interstate highway system, providing direct access into San Diego and the greater metropolitan area.



None of the roadways described above include sidewalks. No pedestrian or bicycle facilities are located in the vicinity, although pedestrian and bicycle traffic is allowed on public roadways that lack dedicated pedestrian or bicycle facilities, in accordance with the California Vehicle Code. The nearest identified bicycle facility is I-8, which allows bicycle access on the interstate shoulder, from Willows Road in Alpine to the SR 79/Japatul Valley Road interchange (SANDAG 2016a). The nearest public transit access point is the terminus of the San Diego Metropolitan Transit System's Bus Route 864, at Willows Road and the Viejas Casino, approximately 3 miles from the Project site (San Diego Metropolitan Transportation System 2016). The nearest airport is the On the Rocks Airport, a private airport in Alpine, located approximately 5 miles southwest of the Project site (FAA 2016).

#### **Traffic Count Data**

No traffic data are available for Bell Bluff Truck Trail and Avenida de los Arboles.

Existing traffic conditions for Japatul Valley Road are based on traffic data reported in the 2008 EIR/Environmental Impact Statement (EIS) and Draft Land Use Amendment for the Sunrise Powerlink Project (CPUC 2008). The segment of Japatul Valley Road from Avenida de Los Arboles to I-8 was found to have an average daily traffic volume of 3,250. The roadway segment's capacity at LOS E was identified as 16,200, resulting in a volume-to-capacity ratio of 0.2, and Level of Service B.

The adequacy of the 2008 data reported above was verified by reviewing changes in traffic data for the period of 2009 to 2013 for the following nearby roadway segments for which traffic counts are available:

- Japatul Road (a light collector with reduced shoulder) from Tavern Road to Lyons Road – approximately 3.8 miles south of the intersection of Japatul Valley Road and Bell Bluff Truck Trail
- SR 79 (a two-lane highway on the State Highway System) immediately north of the I-8/SR 79/Japatul Valley Road interchange.

The average daily traffic (ADT) for the above segment of Japatul Road was reported as 1,000 in 2009, and 400 in 2013 (SANDAG 2016b). The ADT for SR 79 north of I-8 was reported as 5,000 in 2008 (Caltrans 2008), and 4,800 in 2013 (Caltrans 2013). These statistics suggest that there has been no growth in traffic on roadways in the vicinity of the Proposed Project since the traffic counts reported in the Sunrise Powerlink Project EIR/EIS.

Existing traffic conditions for I-8 are based on 2014 traffic data reported by the Caltrans Traffic Data Branch (Caltrans 2014). At the interchange with SR 79 and Japatul Valley Road, I-8 was found to have an ADT of 24,600 west of the interchange, and 19,900 east of the interchange. For reference purposes, the Sunrise Powerlink Project EIR/EIS reported an ADT of 27,000 for I-8. The highway segment's capacity at LOS E was identified as 80,000, resulting in a volume-to-capacity ratio of 0.33, and LOS A (CPUC 2008).

# 19.4 Impact Analysis

## 19.4.1 Methodology

Traffic impacts that would result from the Proposed Project were identified by evaluating Project activities in the context of local and regional circulation patterns, impacts to existing roadway configurations, lane closures, local traffic operation requirements during Project activities, and relevance to standard traffic control plan requirements and strategies. The criteria for determining the significance of potential impacts are outlined below. The discussion below identifies key assumptions used in the impact analysis.

# 19.4.2 Criteria for Determining Significance

Based on Appendix G of the State CEQA Guidelines and professional expertise, it was determined that the Proposed Project would result in a significant impact related to transportation and traffic if it would:

- 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 or interfere with an adopted emergency evacuation plan; or
- F. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

## 19.4.3 Environmental Impacts

# Impact TR-1: Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness (No Impact)

The Proposed Project would not result in any changes to existing plans, ordinances, or policies that establish measures of effectiveness for the performance of the circulation system. Upon completion, there would be no changes to the existing designs or capacities of the circulation system. Therefore, it would not affect the provisions of any such policies or plans. There would be no impact.

# Impact TR-2: Increase in Area Traffic Volumes and Degradation of LOS Due to Project-Generated Traffic (Less than Significant with Mitigation)

During ongoing operation of the Project, traffic would be negligible, consisting of periodic visits to the site by a small crew for the purposes of conducting inspections and testing. The increase in the number of vehicles and trips associated with the Project would not noticeably increase traffic on local roadways. Therefore, long-term operational effects would be less than significant.

The Proposed Project would generate construction-related traffic during the nine-month construction period, and the subsequent two-month cleanup period, described in Chapter 2, *Project Description*. Construction-related traffic would consist primarily of daily commutes by construction workers and periodic delivery and removal of materials to and from the site over the course of the construction period. The addition of construction traffic to roadway volumes could result in minor increases in congestion and delay for vehicles. Furthermore, the presence of construction truck traffic would temporarily reduce roadway capacity because of the slower travel speeds and larger turning radii of trucks.

Construction workers accessing the work sites would add vehicle traffic to area roadways. Typically, construction workers travel together to the work site. Even if each worker drove his or her own vehicle and traveled alone, based on the anticipated number of workers at peak activity (64 workers) the additional vehicle trips generated by construction would be negligible considering the average daily traffic and existing LOS on I-8 and the local roadways. Minor, temporary traffic increases are common for all construction projects and generally are not considered a significant impact because of the small number of trips, their limited duration, and intermittent activity. Thus, even the maximum number of additional commute trips likely to result from construction (64 round trips per day) would not result in a substantial change in traffic flow or intersection operations on regional and local access routes.

Installation of the proposed 1-mile long transmission line/duct bank, splice vaults, and riser pole components of the Project could temporarily affect traffic flow by closing or narrowing lanes on Bell Bluff Truck Trail. Trenching within the roadway would be required to install the duct bank/transmission line along a 1-mile length of Bell Bluff Truck Trail. Additional excavation would occur in the location up to five proposed splice vaults, spaced approximately 900 feet apart along the roadway. Further excavation would occur at the site of the riser pole, proposed in the roadway shoulder, which would have a seven-foot-diameter base and would permanently disturb the area within a 15-foot radius from the pole. The

affected segment of Bell Bluff Truck Trail is located entirely within the secured portion of the road. The intermediate riser pole would be constructed on the hillside on the north side of the SDG&E's existing graveled service road, between 5 and 10 feet from the road edge. Installation of the riser pole and intermediate pole may require localized blasting or other alternative excavation techniques to install the poles (see Section 2.4.2, "Project Construction," for more detail).

On the 30-foot-wide section of Bell Bluff Truck Trail, the plan of construction is to confine construction work areas to only one side of the roadway to maintain an unobstructed access lane to the SDG&E Suncrest Substation and for emergency purposes. Between SDG&E's substation access road and the riser pole structure, Bell Bluff Truck Trail is approximately 12 feet wide. Trenching activities for installation of the underground location in this area may require temporary closure of the 12-foot-wide portion of Bell Bluff Truck Trail.

Construction activities that affect roadway operations could result in significant impacts to traffic flow. Implementation of **Mitigation Measure TR-1** would reduce the effects of construction activities and construction traffic on roadways in the vicinity of the Project site. Mitigation Measure TR-1 includes measures, such as maintaining traffic flow to the extent feasible, and restricting heavy equipment and haul traffic in residential areas. In addition, **Mitigation Measure TR-2** requires the development and implementation of a project-specific traffic control plan (TCP), including advanced notification for any necessary road closures and employment of adequate controls, signage, and detour routes to minimize traffic impacts. Adherence to these measures would ensure that construction-generated traffic and temporary road closures would be less than significant.

In addition, the Proposed Project would involve additional truck haul traffic associated with the removal of excavated material, and may require daily water truck trips, if it is not possible to convey water to the construction site via an existing PVC pipe as discussed in Chapter 2, Project Description. Based on the 4,030-cubic-yard (-cy) estimated range of excavated material requiring disposal, approximately 403 truck haul trips would be generated using standard 10-cu. yd. capacity trucks. Assuming that construction activities would last 11 months (approximately 220 working days), this translates to approximately one to two truck trips per day. With larger 20-cu. yd. trucks, this could be halved, to approximately one-half to one truck trip per day. If it is necessary to deliver water to the site by truck, this would result in an average of three water truck trips per day, with a peak of up to 6 water trucks per day. The combined number of haul truck and water truck trips, on average, would range from four to 6 trips per day (0.5 to 0.75 truck trips per hour, assuming an 8-hour work day). Because these truck haul trips would be intermittent and temporary, the addition of approximately four to five truck trips per day (0.5 to 0.75 trips per hour) over 220 work days would not cause substantial degradation of LOS or delay for motorists in the vicinity of the Proposed Project.

However, as described previously, the presence of construction truck traffic related to heavy equipment transport and haul trucks could temporarily reduce roadway capacity due to the slower travel speeds and larger turning radii of trucks. Implementation of Mitigation Measures TR-1 and TR-2 would ensure that the effects of construction traffic on local roadways would remain less than significant.

1	Mitigation Measure TR-1: Maintain Traffic Flow.
2	NEET West or their contractor(s) shall implement the following measures:
3 4	<ul> <li>To the extent feasible, work shall be staged and conducted in a manner that maintains two-way traffic flow on roadways in the vicinity of the work site.</li> </ul>
5 6 7 8	Heavy equipment and haul traffic shall be prohibited in residential areas to the greatest extent feasible. When no other route to and from the site is available, heavy equipment and haul traffic through residential areas shall be restricted to the hours of 8 a.m. to 5:30 p.m., Monday through Friday.
9 10	Mitigation Measure TR-2: Minimize Effects of Temporary Roadway Disturbances.
11	NEET West or their contractor(s) shall implement the following measures:
12 13 14 15 16 17 18 19 20 21	Prepare and implement a Traffic Control Plan (TCP) to describe procedures to guide traffic (such as signage and flaggers), safeguard construction workers, provide safe passage of traffic, and minimize traffic impacts, as necessary, through the duration of construction. In the event that closure of any portion of Bell Bluff Truck Trail were to become necessary, notification shall be provided to SDG&E at least 5 days in advance of anticipated closures. In the event that road closure were to become necessary for any publicly-accessible road segment, notification shall be posted and/or circulated to the public at least 5 days in advance of anticipated closures. NEET West shall employ adequate control devices, signage, a detour route, and flaggers, as necessary, through the duration of construction.
23	Impact TR-3: Result in a Change in Air Traffic Patterns (No Impact)
24 25 26 27 28	The Proposed Project does not contain any components that would affect air traffic. The tallest element of the Project, identified in Chapter 2, <i>Project Description</i> , is the intermediate pole, which would have a height of approximately 116 feet above ground level. This is below the threshold of 200 feet for FAA notification. The Project would not require FAA notification, and there would be no impact.
29 30	Impact TR-4: Increase in Safety Hazards (Less than Significant with Mitigation)
31 32	Construction activities associated with the Proposed Project could result in the temporary closing or narrowing of lanes on Bell Bluff Truck Trail, as described in Impact TR-1.
33 34 35 36 37	Construction activities would temporarily suspend the normal function of roadways, and would introduce the potential for an increase in traffic safety hazards during construction of the Proposed Project. This potential increase in safety hazards would result from the increased potential for conflicts between construction vehicles, conflicts between the movement of traffic and construction activities, and confusion of drivers, resulting from temporary alterations to roadway conditions.

Mitigation Measures TR-1 and TR-2 would be implemented to ensure that work would be staged and conducted in a manner that would maintain two-way directional flow to the extent feasible, and to ensure that a TCP is developed and implemented, including provision of advanced notice to affected parties regarding any necessary temporary road closures. Implementation of these measures would ensure proper planning of traffic management during maintenance activities, and would provide adequate awareness by affected parties of temporarily altered road conditions and potential hazards.

The Proposed Project does not propose any changes that would permanently reconfigure or alter roadways; therefore, the Project would not result in a permanent impact on roadway safety conditions. With the adherence to the Mitigation Measures TR-1 and TR-2, described above, the Proposed Project's impact on traffic safety hazards would be less than significant.

# Impact TR-5: Interference with Emergency Access and Circulation (Less than Significant with Mitigation)

Road closures, detours, and construction-related traffic could delay or obstruct the movement of emergency vehicles in the vicinity of the Proposed Project. If construction activities interfere with emergency response efforts such that response times would be extended, a significant impact would result. In addition, safe access to the Suncrest Substation may be disrupted by equipment, staging, or construction activity, including potential local blasting along Bell Bluff Truck Trail and the SDG&E service road to construct the riser pole and intermediate riser pole. However, the implementation of Mitigation Measures TR-1 and TR-2, described above, would ensure that work would be staged and conducted in a manner that would maintain two-way directional flow to the extent feasible, and would ensure that a TCP is developed and implemented. If road closures are anticipated, **Mitigation Measure TR-3** would be implemented to ensure the timely notification of maintenance schedules and consultation with all affected agencies (including police and fire departments) for all activities that could affect emergency access.

The Proposed Project does not propose any structures that would permanently block or constrain roadways; therefore, the Project would not result in a permanent impact on emergency and residential access. With the adherence to the Mitigation Measures TR-1 through TR-3, the Proposed Project's impact on emergency access would be less than significant.

#### Mitigation Measure TR-3: Emergency Coordination and Access Considerations.

NEET West or their contractor(s) shall implement the following measures:

- When work is conducted on roads and may have the potential to affect traffic flow, work shall be coordinated with local emergency service providers, as necessary, to ensure that emergency vehicle access and response is not impeded.
- Access for driveways and private roads shall be maintained to the extent feasible. If brief periods of construction work would temporarily block access, property owners shall be notified prior to construction activities.

7

8

9

10 11

12

13

If closure of any portion of Bell Bluff Truck Trail is necessary during Project construction, NEET West shall have staff available on-site at all times to place plates over open trenches, move construction equipment, or clear any other obstructions to allow for 24-hour emergency vehicle access to SDG&E facilities.

# Impact TR-6: Conflicts with Alternative Transportation (Less than Significant)

No public transit, bicycle, or pedestrian facilities are located in the Project vicinity, although bicycles are allowed to use the shoulder of I-8 for approximately 3.5 miles, from Willows Road to the SR 79/Japatul Valley Road interchange. Despite the absence of bicycle or pedestrian facilities, bicyclists and pedestrians may use roadways in the project vicinity, as allowed by the California Vehicle Code. With the implementation of Mitigation Measures TR-1 and TR-2, described above, any impacts to alternative transportation would be less than significant.