

E.1.9 Transportation and Traffic

E.1.9.1 Environmental Setting

Beginning at the Imperial Valley Substation, the Interstate 8 Alternative would follow the existing SWPL 500 kV transmission line for over 35 miles, at which point it would turn northwest and cross I-8 east of Boulevard. The Interstate 8 Alternative would then follow I-8 on its west side to the Interstate 8 Alternative Substation location at MP 18-65, where the line would be converted to 230 kV. From this point, the alternative would continue west as a 230 kV line to join the Proposed Project near MP 131. The alternative would cross over Interstate 5 times.

Table E.1.9-1 identifies the roads that potentially could be impacted by the Interstate 8 Alternative route. For many smaller or lightly traveled roads, the counties do not collect traffic data. Where data are unavailable, the table indicates this with the notation ND.

Table E.1.9-1. Public Roadways along the Alternative Route – Interstate 8 Alternative

Roadway	Jurisdiction	Classification	Existing Lanes	Traffic Volumes			Transmission Line Orientation
				Year	ADT	Milepost	
State and County Facilities							
Interstate 8	Caltrans	Freeway	4	2005	27,000	18-7, 22.9, 27, 39.3, 44.4, 46, 58.7, 62.5, 70.9, 79.5	Overhead
Interstate 79 (Japatul Valley Rd)	San Diego County	Freeway	2	--	3,250	18-67.3	Overhead
County Highway S80	San Diego County	Collector	2	--	1,100	18-10.6	Overhead
Old Highway 80	San Diego County	Collector	2	--	ND	18-31	Overhead
State Highway 94 (Ribbonwood Rd)	Caltrans	Freeway	2	2005	1800	18-42	Overhead
Old Highway 80 (Crestwood Rd)	San Diego County	Collector	2	--	ND	18-46.9	Overhead
County Highway S1	San Diego County	Collector	2	--	ND	18-58.8	Overhead
State Highway 67	Caltrans	Freeway	4	--	22,600	18-91.3	Overhead
County Highway S2 (near Ocotillo)	San Diego County	Collector	2	--	3,400	18-21	Overhead
Local Roadways							
Shell Canyon Rd	Imperial County	None	2	--	ND	18-18.2	Overhead
Jacumba National Coop	--	None	2	--	ND	18-31.2	Overhead
Carrizo Creek Rd	San Diego County	None	2	--	ND	18-32	Overhead
Carrizo Gorge Rd	San Diego County	Collector	2	--	ND	18-33.2	Overhead
Desert Rose Ranch Rd	San Diego County	None	2	--	ND	18-37	Overhead
McCain Valley Rd	San Diego County	Rural LC	2	--	ND	18-40	Overhead
Four Cs Ranch Rd	San Diego County	None	2	--	ND	18-42.2	Overhead

Table E.1.9-1. Public Roadways along the Alternative Route – Interstate 8 Alternative

Roadway	Jurisdiction	Classification	Existing Lanes	Traffic Volumes			Transmission Line Orientation
				Year	ADT	Milepost	
Live Oak TRL/Manzanita Rd	San Diego County	Rural LC	2	--	ND	18–44.8	Overhead
Williams Rd	San Diego County	None	2	--	ND	18–45.8	Overhead
Crestwood Rd	San Diego County	None	2	2001	700	18–46.9	Overhead
La Posta Rd	San Diego County	Rural LC	2	--	ND	18–51	Overhead
Kitchen Creek Rd	San Diego County	None	2	--	ND	18–53.1	Overhead
Sheephead Mountain Rd	San Diego County	None	2	--	ND	18–55.9	Overhead
Bear Valley Loop Rd	San Diego County	None	2	--	ND	18–59.1 & 60.5	Overhead
Corte Madera Rd	San Diego County	None	2	--	ND	18–62.5	Overhead
Pine Valley–Las Bancas Rd	San Diego County	None	2	--	ND	18–66	Overhead
Willows Road? unnamed	San Diego County	Collector	2	--	10,910	18–70.9	Underground
Alpine Blvd	San Diego County	Collector	2	--	2000	18–71.5 & 79.4	Underground
Casa De Roca Way	San Diego County	None	2	--	ND	18–72.8	Underground
Lynn Oak Dr	San Diego County	None	2	--	ND	18–72.9	Underground
Star Valley Rd	San Diego County	None	2	--	ND	18–73.8	Underground
Via La Mancha	San Diego County	None	2	--	ND	18–74.5	Underground
Honey Hill Ranch Rd	San Diego County	None	2	--	ND	18–75.5	Underground
Rock Terrace	San Diego County	None	2	--	ND	18–75.8	Underground
Louise Drive	San Diego County	None	2	--	ND	18–76	Underground
Bay Meadows Dr/Hialeah Ln	San Diego County	None	2	--	ND	18–76.2	Underground
Terrace KNLS	San Diego County	None	2	--	ND	18–76.3	Underground
Ramsey Rd	San Diego County	None	2	--	ND	18–76.3	Underground
Marshall Rd	San Diego County	None	2	--	ND	18–76.5	Underground
Victoria Dr/Grade Rd	San Diego County	None	2	--	2,750	18–75.7	Underground
Olivewood Ln	San Diego County	None	2	--	ND	18–76.8	Underground
Boulders Rd	San Diego County	None	2	--	ND	18–77	Underground
Tavern Rd	San Diego County	Collector	4	--	9,200	18–77.5	Underground
Peutz Valley Rd	San Diego County	None	2	--	ND	18–79.2	Underground
El Monte Rd	San Diego County	None	2	--	ND	18–82	Overhead
Wildcat Canyon Rd	San Diego County	None	2	2003	4900	18–86.9	Overhead
Moreno Ave	San Diego County	None	2	--	2,600	18–89.7	Overhead
Victoria Dr	San Diego County	Collector	2	2003	2,200	18–76.7	Underground
Marshall Rd	San Diego County	None	2	--	ND	18–76.6	Underground
Public Rd	San Diego County	None	2	--	ND	18–33.1	Overhead
Ribbonwood Rd	San Diego County	None	2	--	ND	18–42	Overhead
Rdrunner Ln	San Diego County	None	2	--	ND	18–42.8	Overhead
Farlin Rd	San Diego County	None	2	--	ND	18–71.9	Underground
Vista Alpine Rd	San Diego County	None	2	--	ND	18–76.4	Underground

Source: California Department of Transportation; County of San Diego; County of Imperial; Linscott, Law & Greenspan Engineers.
ND = Data not available; ADT = Average Daily Traffic

Table E.1.9-2 lists existing traffic conditions and conditions with the alternative added to existing conditions.

Table E.1.9-2. Public Roadways along the Alternative Route – Interstate 8 Alternative

Roadway	Jurisdiction	LOS E Capacity	Existing			Existing & Alternative Construction-Related Traffic			
			ADT ^a	LOS ^b	V/C ^c	ADT	LOS	V/C	Δ ^d
Interstate 8	Caltrans	80,000	27,000	A	0.33	27,576	A	0.34	0.01
Interstate 79 (Japatul Valley Rd)	San Diego Co	16,200	3250	B	0.20	3826	B	0.23	0.03
County Highway S80	San Diego Co	16,200	1100	A	0.06	1676	A	0.10	0.04
Old Highway 80	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
State Highway 94 (Ribbonwood Rd)	Caltrans	16,200	1800	A	0.11	2376	A	0.14	0.03
Old Highway 80 (Crestwood Rd)	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
County Highway S1	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
State Highway 67	Caltrans	30,000	22,600	D	0.75	23,176	D	0.77	0.02
County Highway S2 (near Ocotillo)	San Diego Co	16,200	3,400	B	0.21	3976	B	0.24	0.03
Shell Canyon Rd	Imperial Co	--	ND	ND	ND	ND	ND	ND	ND
Jacumba National Coop	--	--	ND	ND	ND	ND	ND	ND	ND
Carrizo Creek Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Carrizo Gorge Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Desert Rose Ranch Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
McCain Valley Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Four Cs Ranch Rd	San Diego Co	----	ND	ND	ND	ND	ND	ND	ND
Live Oak Trl/ Manzanita Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Williams Rd	San Diego Co		ND	ND	ND	ND	ND	ND	ND
Crestwood Rd	San Diego Co	16,200	700	A	0.04	1276	A	0.07	0.03
La Posta Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Kitchen Creek Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Sheephead Mountain Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Bear Valley Loop Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Corte Madera Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Pine Valley– Las Bancas Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Willows Rd ? unnamed	San Diego Co	16,200	10,910	E	0.67	11,486	E	0.70	0.03
Alpine Blvd	San Diego Co	16,200	2000	B	0.12	2576	B	0.16	0.04
Casa De Roca Way	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Lynn Oak Dr	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Star Valley Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Via La Mancha	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND

Table E.1.9-2. Public Roadways along the Alternative Route – Interstate 8 Alternative

Roadway	Jurisdiction	LOS E Capacity	Existing			Existing & Alternative Construction-Related Traffic			
			ADT ^a	LOS ^b	V/C ^c	ADT	LOS	V/C	Δ ^d
Honey Hill Ranch Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Rock Terrace	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Louise Dr	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Bay Meadows Dr/Hialeah Ln	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Terrace KNLS	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Ramsey Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Marshall Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Victoria Dr/Grade Rd	San Diego Co	16,200	2750	B	0.17	3326	B	0.20	0.03
Olivewood Ln	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Boulders Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Tavern Rd	San Diego Co	16,200	9200	D	0.56	9776	D	0.60	0.04
Peutz Valley Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
El Monte Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Wildcat Canyon Rd	San Diego Co	16,200	4900	C	0.30	5476	C	0.33	0.03
Moreno Ave	San Diego Co	16,200	2600	B	0.16	3176	B	0.19	0.03
Victoria Dr	San Diego Co	16,200	2200	B	0.13	2776	B	0.17	0.04
Marshall Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Public Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Ribbonwood Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Rrunner Ln	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Farlin Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND
Vista Alpine Rd	San Diego Co	--	ND	ND	ND	ND	ND	ND	ND

Source: California Department of Transportation; County of San Diego; County of Imperial; Linscott, Law & Greenspan Engineers.

ND = Data not available

a. Average daily traffic.

b. Level of service.

c. Volume to capacity ratio.

d. Δ denotes an increase in delay due to project.

Bold and shading indicates a potential significant impact.

E.1.9.2 Environmental Impacts and Mitigation Measures

Table E.1.9-3 summarizes the impacts of the Interstate 8 Alternative and the five options with regard to transportation and traffic.

The Interstate 8 Alternative would not have impacts on planned transportation projects (Impact T-8) as there are no known planned transportation projects in the area. Therefore, this impact is not considered further.

Table E.1.9-3. Impacts Identified – Alternatives – Transportation and Traffic

Impact No.	Description	Impact Significance
Interstate 8 Alternative (and all Options)		
T-1	Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow	Class II
T-2	Construction would temporarily disrupt the operation of emergency service providers	Class III
T-3	Construction would temporarily disrupt bus transit services	Class III
T-4	Construction would temporarily disrupt pedestrian and/or bicycle movement and safety	Class II
T-5	Construction vehicles and equipment would potentially cause physical damage to roads in the project area	Class II
T-6	Construction activities would cause a temporary disruption to rail traffic or operations	Class III
T-7	Construction would result in the short-term elimination of parking spaces	Class III
T-9	Construction would generate additional traffic on the regional and local roadways	Class II
T-10	Underground construction could restrict access to properties and businesses	Class II

Construction Impacts

Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow (Class II)

The Interstate 8 Alternative would cross Interstate 8 and several highways and numerous local roadways as both an underground and an overhead transmission line. Construction of this alternative would potentially require roadways to be temporarily closed and/or lane restrictions imposed to various phases of construction. SDG&E has committed to implement T-APM-2a and T-APM-2b as part of the Proposed Project, which would require SDG&E to obtain permits and develop detour plans for any lane closures. Any project requirement to transport oversize or overweight loads also would require approval from Caltrans. Impacts to lane closure along the Interstate 8 Alternative would be significant (Class II). To ensure that roads and highways are not unnecessarily impacted during construction, Mitigation Measure T-1a would constrain the time of closure, reducing the impact to less than significant.

Where the alternative would cross roads in CNF, the Forest Service would impose a number of conditions regarding roads, including development of a Project Road and Traffic Management Plan. The plan would identify all affected roads and provide for consultation with CNF regarding construction, upgrades, use, maintenance, and repair of roads.

Mitigation Measure for Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow

T-1a Restrict lane closures.

Impact T-2: Construction would temporarily disrupt the operation of emergency service providers (Class III)

Construction activity associated with the Interstate 8 Alternative would potentially interfere with emergency response by ambulance, fire, paramedic and police vehicles if roadways are blocked, lanes are closed or access to residences and businesses is restricted. Roadway segments that would be most impacted would be two-lane roadways that provide one lane of travel per direction. SDG&E has committed to implement T-APM-4a (Coordinate with emergency service providers) as part of the Proposed

Project. Implementation of T-APM-4a would reduce the potential for temporary disruptions of emergency service provider operations emergency service providers would be aware of any potential delays, lane closures, and/or roadway closures. Impacts to emergency services would be less than significant (Class III). No mitigation would be required.

Impact T-3: Construction would temporarily disrupt bus transit services (Class III)

Metropolitan Transit System bus routes 864 and 894 as well as local school bus routes could potentially be impacted by the Interstate 8 Alternative. Construction activities would potentially cause transit and school bus schedule delays if roadways need to be shut down for a prolonged length of time. SDG&E has committed to T-APM-5 as part of the Proposed Project, which requires SDG&E to consult with the transit systems and affected school districts at least one month prior to construction to coordinate construction activities; therefore, impacts to bus transit services would be less than significant (Class III). No mitigation would be required.

Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle movement and safety (Class II)

Pedestrian and bicycle movement would be affected by construction activities if pedestrians and bicyclists are unable to pass through the construction zone or if established pedestrian and bicycle routes are blocked. Within this alternative there are designated pedestrian and bicycle routes. SDG&E did not develop APMs for pedestrian and/or bicycle movement impacts. Therefore, Mitigation Measure T-4a and WR-1b would be implemented to ensure this potential impact remains less than significant (Class II).

Mitigation Measure for Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle movement and safety

T-4a Ensure pedestrian and bicycle movement and safety.

WR-1b Provide temporary detours for trail users.

Impact T-5: Construction vehicles and equipment would potentially cause physical damage to roads in the project area (Class II)

Excavation in roads would be a significant impact to the road. In addition, there is a potential for damage to other roads by construction activities, construction vehicles, and transport of equipment along the Interstate 8 Alternative. Construction traffic or equipment movement would be considered a significant impact if there is an increase in the wear on roadways, resulting in noticeable deterioration of roadway surfaces or other features in the road ROW. These impacts would be significant (Class II). SDG&E has not presented any applicant proposed measures for damaged roads; therefore, Mitigation Measure T-5a would be implemented in order to ensure that the roads would be repaired and properly restored.

Mitigation Measure for Impact T-5: Construction vehicles and equipment would potentially cause physical damage to roads in the project area

T-5a Repair damaged roads.

Impact T-6: Construction activities would cause a temporary disruption to rail traffic or operations (Class III)

Overhead and underground construction activities would potentially interfere with rail traffic because construction of the Interstate 8 Alternative could require temporary closure of San Diego and Imperial

Valley Railroad as well as Union Pacific Railroad ROWs. SDG&E has committed to implementing T-APM-8a as part of the Proposed Project, requiring SDG&E to obtain a permit to enter railroad ROWs. By complying with the railroad company permit requirements, the impact of the Interstate 8 Alternative on rail traffic operations would be less than significant (Class III). No mitigation would be required.

Impact T-7: Construction would result in the short-term elimination of parking spaces (Class III)

Construction activities may result in short-term elimination of parking spaces during construction. This would be of particular concern in built-up areas such as Alpine. SDG&E has committed to implementing T-AMP-6a and 6b (compliance with county parking requirements) as part of the Proposed Project, which specifies certain parking requirements and the development of a traffic control plan. Impacts to parking spaces may be adverse but would be less than significant (Class III). No mitigation would be required.

Impact T-9: Construction would generate additional traffic on the regional and local roadways (Class II)

Construction activities would temporarily increase traffic on the regional and local roadways due to construction worker commute trips, material and equipment deliveries, and hauling materials to construction sites. These additional trips would be temporary and would not cause an increase that would be substantial in relation to the existing traffic loads overall. However, impacts could be substantial at specific locations. This would be a significant impact (Class II). To ensure that regional and local roadways are not unnecessarily impacted by additional traffic on urban and residential roadways, Mitigation Measure T-9a is required. It would reduce the impact to less than significant.

Mitigation Measure for Impact T-9: Construction would generate additional traffic on the regional and local roadways

T-9a Prepare Construction Transportation Management Plan.

Impact T-10: Underground construction could restrict access to properties and businesses (Class III)

Underground construction of the Interstate 8 Alternative would restrict access to private properties and businesses by residents and members of the public during underground construction in roadways. SDG&E has committed to implementing T-APM-10a as part of the Proposed Project, which requires SDG&E or contractors to lay a temporary steel plate over the trench in order to provide access to properties. Access shall be maintained at all times when underground construction is not occurring. Access issues along this alternative are considered adverse, but would be less than significant (Class III). No mitigation would be required.

Operational Impacts

Once built, Interstate 8 Alternative operations and maintenance would require infrequent use of a limited number of trucks for inspection and maintenance work. Therefore, it would have a minimal effect on traffic, movement, emergency access restrictions, increased road hazards and/or the level of service on roadways. Likewise, air traffic operations at Jacumba Airport would not be impacted by the Interstate 8 Alternative. The airport is approximately 6,000 south of the Interstate 8 Alternative, which would parallel the north side of the existing SWPL transmission line.

E.1.9.3 Interstate 8 Alternative Substation

The Interstate 8 Alternative Substation would convert the 500 kV transmission line to a double-circuit 230 kV transmission line. The substation would be located at MP I8-65, located 0.75 miles north of I-8 and approximately 2.5 miles west of Pine Valley.

Access to the site would be from I-8 via Pine Valley Road, Old Highway 80, and Pine Valley–Las Bancas Road. Because of its location, the rest of the route to the site would be via existing unimproved roads or new access roads. The existing roads are lightly traveled. However, they would potentially be impacted by the Interstate 8 Alternative Substation. Because of its location adjacent to the Interstate 8 Alternative, the substation would have the same impacts as the alternative in terms of transportation and traffic. Substation construction would rely on the same road network in this area as would the transmission line construction. The same APMs and mitigation measures would apply to the substation as to the alternative.

E.1.9.4 Interstate 8 Route Options

Campo North Option

In response to a request from the Campo Tribe, an option is considered in which the Interstate 8 Alternative route would remain north of the freeway in the vicinity of the existing wind farm, passing immediately adjacent to the southernmost wind turbine in the Kumeyaay Wind Energy Project (at about MP I8-45) and just north of the Caltrans ROW. This option would avoid two freeway crossings and shorten the route by about 0.5 miles.

Williams Road and Canebrake Road would potentially be impacted by the Campo North Option, which would cross over them near either end of the option. These are lightly used roads. Because of its proximity to the Interstate 8 Alternative (which would be parallel, but on the south side of I-8), transportation and traffic impacts would be similar to the Interstate 8 Alternative in this area and the same APMs and mitigation measures would apply. The Campo North Option would eliminate two crossings of I-8 at this location.

Buckman Springs Underground Option

This option would require construction of two overhead/underground transition structures for the 500 kV line, and installation of an underground segment for approximately 1.9 miles to replace the Interstate 8 Alternative's overhead structures in this area. The route would continue north/east of I-8, and then transition to an underground 500 kV line at a transition station located at MP I8-55. The underground route would parallel I-8 just east of the Buckman Springs Caltrans Rest Area, then transition back to a 500 kV overhead line at MP I8-57.

The Buckman Springs Underground Option would follow Sheephead Mountain Road (for road details see Table E.1.9-1) for approximately 0.6 miles. This is lightly used, unimproved road. Because of its proximity to the Interstate 8 Alternative, transportation and traffic impacts would be similar to the Interstate 8 Alternative in this area and the same APMs and mitigation measures would apply.

West Buckman Springs Option

This option moves the transmission line to a location west of Buckman Springs Valley, west of where the alternative would traverse. At MP I8-54, the option would cross to the south side of the interstate,

heading west. After crossing the Pacific Crest National Scenic Trail, the option would follow the west side of Buckman Springs Road north for approximately 4 miles, passing just west of the Boulder Oaks Campground and within two miles northeast of the Morena Reservoir. At the north end of Buckman Springs, the option would again connect to the Interstate 8 Alternative near MP I8-58.

The following roads would potentially be impacted by the West Buckman Springs Option:

- Interstate 8 (For road details see Table E.1.9-1)
- Old Highway 80
- Buckman Springs Road
- Bear Valley Road

Except for I-8, these roads are lightly used. Because of its similarity to the Interstate 8 Alternative (which would be parallel to the option but on the north side of the freeway), transportation and traffic impacts would be similar to the Interstate 8 Alternative in this area. The same APMs and mitigation measures would apply.

South Buckman Springs Option

This option would avoid Backcountry Non-Motorized land use zones in the CNF that occur north and east of Interstate 8. The option route would start from the Modified Route D Alternative (described in Section E.4.1). At approximately MP MRD-4.5, rather than turn south and continue on the Modified Route D Alternative, the South Buckman Springs Option would continue due west to Buckman Springs Road before turning north and joining the West Buckman Springs Option. The option would cross Cameron Truck Trail and Buckman Springs Road. These local roads are lightly used. Because of its similarity to the Interstate 8 Alternative and the other options in this vicinity, transportation and traffic impacts would be similar to the Interstate 8 Alternative. The same APMs and mitigation measures that apply to the alternative would apply to the option.

Chocolate Canyon Option

The Chocolate Canyon Option would modify the Interstate 8 Alternative from west of Alpine to near MP I8-82, about 0.5 miles below the dam on El Capitan Reservoir. This route would parallel unimproved El Monte Road for about half of the option's length, and then the improved portion of the road at El Capitan Reservoir. In terms of transportation and traffic impacts, the Chocolate Canyon option would be the same as the Interstate 8 Alternative segment it would replace. The same APMs and mitigation measures that apply to the alternative would apply to this option.

E.1.9.5 Future Transmission System Expansion for Interstate 8 Alternative

As described in Section E.1.1, the Interstate 8 Alternative Substation that would be built as a part of the Interstate 8 Alternative would accommodate up to six 230 kV circuits. Only two circuits are proposed by this alternative at this time, but construction of additional 230 kV circuits out of the Interstate 8 Alternative Substation may be required in the future. This section considers the impacts of construction and operation of these potential future transmission lines. There are three routes that are most likely for these future lines; each is addressed below. Figure Ap.1-29 illustrates the potential routes of the transmission lines.

Environmental Setting – 230 and 500 kV Future Transmission System Expansion

Future 230 and/or 500 kV lines from the Interstate 8 Alternative Substation would most likely follow one or more of the following routes:

Interstate 8 Route Including Underground Within Alpine Boulevard

The Interstate 8 route including underground within Alpine Boulevard would only be applicable for future 230 kV lines.

Additional 230 kV circuits could be installed underground within Alpine Boulevard, with appropriate compact duct banks and engineering to avoid, or possibly relocate, existing utilities. See Section E.1.9.1 and E.1.9.2 for a description of the Environmental Setting and Mitigation Measures for Traffic for the Interstate 8 Alternative. The future transmission line route would follow the I8 Alternative's 230 kV route to the point where it meets the Proposed Project at MP 131. The future transmission route would then join the proposed route corridor to the west, continuing past the Sycamore Canyon Substation to the Chicarita Substation. See Section D.9.2, D.9.8, and D.9.9 for a description of the Environmental Setting and Mitigation Measures for Traffic of the Inland Valley Link and the Coastal Link of the Proposed Project. The Interstate 8 230 kV future transmission route could then follow the Proposed Project's 230 kV Future Transmission Expansion route from Chicarita to the Escondido Substation shown in Figure B-12a. See Section D.9.11 for a description of the Environmental Setting and Mitigation Measures for the Proposed Project's Future Transmission Expansion route.

Route D Alternative Corridor

Additional 230 or 500 kV circuits could follow the Route D Alternative corridor to the north of Descanso, after following the Interstate 8 Alternative 230 kV route from the Interstate 8 Substation to MP 18 70.3. The environmental setting and mitigation measures for Traffic of the Route D Alternative can be found in Section E.3.9.1 and in Section E.3.9.2. It should be noted, however, that the Route D Alternative traffic impacts and mitigation measures are for a 500 kV transmission line, and the Interstate 8 future transmission line as detailed above could be either a 500 kV line or a 230 kV line. For a description of a typical 500 kV transmission support structure and a typical 230 kV support structure see Section B.3.1.

The Route D corridor would connect with the Proposed Project corridor at Milepost 114.5, and could then follow either: (1) the Proposed Project southward to the Chicarita Substation and then follow the Proposed Project's 230 kV Future Transmission Expansion route (see description in Section B.2.7) from Chicarita to the Escondido Substation; or (2) the Proposed Project northward to the Proposed Central East Substation and then follow the Proposed Project's 500 kV Future Transmission Expansion route shown in Figure B-12b (see description in Section B.2.7). See Section D.9.2 for more information on the traffic setting of the Central, Inland Valley, and Coastal Links of the Proposed Project.

For the traffic setting, impacts, and mitigation measures of the Proposed Project's 230 kV Future Transmission Expansion route and the Proposed Project's 500 kV Future Transmission Expansion route see Section D.9.11.

Interstate 8 Alternative with Modified Route D alignment and West of Forest alignment

The future 230 or 500 kV lines could follow the proposed Interstate 8 Alternative route from the Interstate 8 Alternative Substation until reaching the Modified Route D Alternative corridor (within the 368 Corridor identified by the Department of Energy's Draft West-wide Corridor Programmatic EIS) and

then follow the Modified Route D Alternative corridor south for 11 miles to MP MD-26. For the Traffic Setting and Impacts along the Modified Route D corridor see Section E.4.9. At MP MD-26, new 230 or 500 kV circuits would turn west and connect with the northernmost segment of the West of Forest Alternative¹ route as described in Section E.1.1. This route would meet up with the Interstate 8 Alternative at approximately MP I8-79 and would follow the I8 Alternative's overhead 230 kV route to the point where it meets the Proposed Project at MP 131. The future transmission route would then join the proposed route corridor to the west, continuing past the Sycamore Canyon Substation to the Chicarita Substation. It could then follow the Proposed Project's 230 kV Future Transmission Expansion route (see description in Section B.2.7) from Chicarita to the Escondido Substation.

The following roads would potentially be impacted by the future 230 or 500 kV route:

- Hilary Drive
- Mark Trail
- Lawson Valley Road
- Forest Route 16SD1
- Sycuan Truck Trail
- Dehesa Road
- Harbison Canyon Road
- Mountain View Road

Environmental Impacts – 230 or 500 kV Future Transmission System Expansion

As there are no rail operations in the vicinity of the 230 or 500 kV future transmission route along the West of Forest alignment, Impact T-6 (Construction activities would cause a temporary disruption to rail traffic or operations) would not occur. As there are no underground construction within this segment of the future transmission lines, Impact T-10 (Underground construction would restrict access to properties and businesses) would not occur.

Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow (Class II)

Construction of the future transmission routes would result in roadway closures at locations where the construction activities, especially transmission line stringing, would be located within ROWs of public streets and highways. The future expansion 230 or 500 kV lines would require transmission line stringing over several local roads. In addition, delivery of large equipment and materials via truck would require temporary road or lane closures.

Prior to conducting work within or above a road ROW, an encroachment permit or similar authorization would be required by the applicable jurisdictional agency at locations where the construction activities would occur within or above the public road ROW. The specific requirements of the applicable transportation agency may require traffic safety measures at encroachment locations, including detouring all traffic off the roadway at the construction location or implementation of a controlled continuous traffic break while stringing operations are performed. Encroachment permits would also restrict road closures to off-peak periods to avoid excessive traffic congestion, where necessary. The specific agency requirements would be included as stipulations in the required encroachment permits. Road and lane closures would be a sig-

¹ The West of Forest Alternative was considered in this EIR/EIS but was not retained for detailed analysis; see Section 4.8.9.

nificant impact (Class II). Mitigation Measure T-1a (Restrict lane closures) and Mitigation Measure T-1b (Prepare detour plans) would apply. Implementation of Mitigation Measure T-1a and T-1b would reduce the impacts of temporary road and lane closures because road and lane closures would be restricted and detours allow for traffic to be rerouted around the construction zone.

Mitigation Measure for Impact T-1: Construction would cause temporary road and lane closures that would temporarily disrupt traffic flow

T-1a Restrict lane closures.

T-1b Prepare detour plans. Detour plans shall be submitted to the counties, Caltrans, and/or other appropriate jurisdiction. Within the ABDSP, a Right-of-Entry (ROE) permit is required for any construction and maintenance activities that would occur outside of existing easements, including access roads. SDG&E will provide California State Parks a request in writing for maintenance or other earth-disturbing activities. [T-APM-2b]

Impact T-2: Construction would temporarily disrupt the operation of emergency service providers (Class II)

Construction activities would interfere with emergency response by ambulance, fire, paramedic, and police vehicles. The roadway segments that would be most impacted would be two-lane roadways, which provide one lane of travel per direction. Additionally, there is a possibility that emergency services would be needed at a location where access is temporarily blocked by the construction zone. The implementation of Mitigation Measure T-2a, requiring coordination in advance with emergency service providers to avoid restricting movements of emergency vehicles, would minimize this impact because emergency service providers would be aware of any potential delays, lane closures, and/or roadway closures in order to develop alternative routes and adjust service areas and destinations as necessary to maintain emergency service coverage and response times.

Mitigation Measure for Impact T-2: Construction would temporarily disrupt the operation of emergency service providers (Class II)

T-2a Coordinate with Emergency Service Providers. SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The counties and cities will then notify respective police, fire, ambulance and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing and duration of any construction activities and advise of any access restrictions that could impact their effectiveness. [T-APM-4a]

Impact T-3: Construction would temporarily disrupt bus transit services (Class II)

Construction activities would affect bus operations within the project vicinity. In addition, transit and school bus routes would be affected by construction activities. If necessary, bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. The implementation of Mitigation Measure T-3a, requiring consultation with transit services and school districts at least one month prior to construction to coordinate construction activities adjacent to bus stops, would minimize this impact because school districts and transit systems will be able to develop alternative routes and/or bus stops avoiding the construction zone.

Mitigation Measure for Impact T-3: Construction would temporarily disrupt bus transit services (Class II)

T-3a Consult with bus and transit services. SDG&E shall consult with the County Offices of Education, and any affected local school district at least one month prior to construction to coordinate construction activities adjacent to school bus routes and stops. If necessary, school bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. SDG&E will also consult with Imperial Valley Transit, Metropolitan Transit System and any other affected transit system at least one month prior to construction to reduce potential interruption of transit services. [T-APM-5a]

Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle circulation and safety (Class II)

Pedestrian and bicycle circulation would be affected by transmission line construction activities if pedestrians and bicyclists were unable to pass through the construction zone or if established pedestrian and bike routes were blocked. Implementation of Mitigation Measure T-4a (Ensure pedestrian and bicycle circulation and safety) would minimize this impact.

Mitigation Measure for Impact T-4: Construction would temporarily disrupt pedestrian and/or bicycle circulation and safety

T-4a Ensure pedestrian and bicycle circulation and safety.

Impact T-5: Construction vehicles and equipment would potentially cause physical damage to roads in the project area (Class II)

Construction activities involving trenching in roadways for the installation of underground transmission lines would result in physical damage to the roads. Construction activities would also result in impacts associated with physical damage to roads from construction vehicles entering and leaving the roadways. Additionally, unexpected damage would occur on the roadways by vehicles and equipment transportation. Implementation of Mitigation Measure T-5a (Repair damaged roads) would reduce this impact to less than significant level because all roadways damaged would be repaired to pre-construction conditions.

Mitigation Measure for Impact T-5: Construction vehicles and equipment would potentially cause physical damage to roads in the project area

T-5a Repair damaged roads.

Impact T-7: Construction would result in the short-term elimination of parking spaces (Class II)

Construction activities would result in short-term elimination of parking spaces immediately adjacent to the construction ROW and at construction staging areas. SDG&E has committed to implementing T-APM-6a and 6b as part of the Proposed Project. These would limit the potential impacts because SDG&E would be required comply with county requirements regarding parking. However, in some circumstances, construction may still eliminate parking spaces (Class II). Implementation of county parking guidelines along county-maintained roadways as indicated in approved traffic control plans and implementation of Mitigation Measure T-7a (Notify public of potential short-term elimination of parking spaces) would minimize the effect of this impact because alternative parking would be made available and the public would be notified in advance.

Mitigation Measure for Impact T-7: Construction would result in the short-term elimination of parking spaces

T-7a Notify public of potential short-term elimination of parking spaces.

Impact T-8: Construction would conflict with planned transportation projects (Class III)

Construction activities would conflict with improvement projects along one or more of the numerous roadways/transportation corridors along the Future Expansion project routes. An encroachment permit or other such agreement must be obtained for each location where the project would interface with a roadway or other transportation facility. Complying with local permits and agreements would ensure appropriate coordination between SDG&E and the affected agencies prior to construction so that conflicts would be avoided or minimized by rescheduling or relocating construction activities.

Impact T-9: Construction would generate additional traffic on the regional and local roadways (Class II)

Construction of the 230 kV FTSE would temporarily increase traffic (project trip generation) on the regional and local roadways through construction worker commute trips, project equipment deliveries, and hauling materials such as support structures and poles, concrete, fill, and excavation spoils. Impacts related to the generation of construction traffic would be temporary. Although the project would add fewer than 200 trips per day to this road segment, and therefore does not result in a significant direct impact to the 230 kV FTSE route roadway segments based on the County's significance criteria, the project would incrementally add traffic to the existing unacceptable LOS on the 8 roadway segments that currently operate below acceptable LOS (Class II). Of the 23 roadways associated with the 230 kV FTSE route, there are 8 roadways that currently operate below acceptable levels of service (LOS). Therefore, implementation of Mitigation Measure T-9a (Prepare Construction Transportation Management Plan) would ensure that significant impacts of decreased LOS on area roadways are reduced to less than significant levels by submitting for approval a CTMP to the affected city and/or county which would include detours, alternative routes and other measures to reduce additional traffic during construction. In addition to Mitigation Measure T-9a SDG&E would be required to pay the County's Transportation Impact Fee to fund its fair share of this traffic condition.

Mitigation Measure for Impact T-9: Construction would generate additional traffic on the regional and local roadways

T-9a Prepare Construction Transportation Management Plan.

Operational Impacts

The potential impacts associated with operation of the 230 or 500 kV future transmission lines would be similar to the issues described for the Interstate 8 Alternative. The applicant would need to inspect and maintain the proposed lines and substation throughout the year. Aerial inspection of the 230 or 500 kV future transmission lines would occur three times a year. Climbing inspections of the transmission facilities would occur once every three years. Overall, project operations would have a less than significant impact on traffic, circulation, and/or the level of service on nearby roadways (Class III) because the regional and local roadway LOS would not decrease due to operation of the Interstate 8 Alternative Substation. Traffic delays are not expected to significantly impact regional and local roadway LOS, and roadways are not expected to noticeably incur significant physical damage among other impacts.