

E.1.14 Socioeconomics

E.1.14.1 Environmental Setting

This alternative would generally parallel I-8 between the Imperial Valley Substation in Imperial County and the community of Alpine in San Diego County. Two options for this alternative include an underground portion through Buckman Springs near the glider landing pad or relocation of the transmission line through the Buckman Springs area west of Interstate 8 and S1 (Old Highway 80). The alternative route would be 92.7 miles long, about 38.3 miles shorter than the proposed route.

Jurisdictions along this alternative route include Bureau of Indian Affairs, BLM, Department of Homeland Security (Border Patrol), U.S. Forest Service, Caltrans, Union Pacific Railroad, San Diego County Water Authority (SDCWA), County of Imperial, County of San Diego, and City of San Diego. Demographics, housing, and public services and utilities providers information would be identical to the Proposed Project in Imperial and San Diego Counties and the City of San Diego, which is described in Section D.14.2. Schools that would be located along the route include: Alpine Elementary School and Los Coches Creek Middle School. The Buckman Springs Option would pass near Mountain Empire High School. Additionally, the alternative route would traverse through the town of Alpine and its demographic characteristics are shown in Table E.1.14-1.

Table E.1.14-1. Demographic Characteristics – Interstate 8 Alternative

Location	Year 2000 Population	Year 2000 Housing Units	Year 2000 Employed
Alpine CDP* (San Diego County)	13,143*	4,958 ¹ Vacancy Rate: 3.7% (183 units)	Labor Force: 6,871* persons Construction Occupations: 955 persons Unemployed: 312 persons

¹ Year 2000 Census data are presented, because 2005 American Community Survey (ACS) data are not available for this geographic location.

* Source: U.S. Census 2000; 2005 American Community Survey, <http://factfinder.census.gov> accessed June 6, 2007.

The Interstate 8 Alternative would parallel, cross, or be adjacent to the following existing utilities and facilities:

- SDG&E Southwest Powerlink (SWPL) Imperial Valley–Miguel 500 kV transmission line (MP I8-0 to MP I8-35.7) (separated by an average of 400 feet)
- Kumeyaay Wind Energy Project (MP I8-44.7; the line would be located south of I-8, but there is an option for the line to be located on the north side)
- Utility facility (MP I8-22)
- Water facilities (Padre Dam Reservoir [MP I8-79], El Capitan Reservoir and associated dam facilities [MP I8-82], and San Vicente Reservoir [MP I8-91])
- San Diego County Water Authority (SDCWA) storage (pipe and associated dam equipment) (MP I8-89).

The route would travel underground, south of the I-8 in Alpine Boulevard for 8.8 miles (MP I8-70.8 to MP I8-79.6). Based on research performed by the EIR/EIS team, Alpine Boulevard between the eastern Willows Road exit from I-8, and Viewside Road generally has light utility congestion along most of the length, with the exception of an area of moderate congestion located near the intersection with East

Victoria Drive in the central business district of the community of Alpine (Cornerstone Engineering, Inc., 2007b). The nearly 4-mile portion of roadway leading west from the Willows Road exit off I-8 to the town of Alpine has a rural character, with no curbs, sidewalks, or street lighting. No sewer or water lines were observed within the roadway along this section. The roadway abuts the southerly edge of the I-8 right-of-way. There are at least two underground fiber optic lines, one along each side of the road near the edges of pavement. Electric and communications lines are located overhead on poles at the edge of pavement, on one or both sides of the road. A boxgirder type bridge spanning Viejas Creek has a six-inch rigid metal conduit attached to the outside of the north side. It appears to be a carrier pipe for fiber optic lines.

Leading west from the intersection with East Victoria drive, the roadway enters the town of Alpine and contains typical service distribution utilities such as water, sewer, electrical, and gas lines. The water lines are located within the southern lanes of the roadway. Much of the portion between East Victoria and West Victoria contains two sewer lines, with one situated in each traffic lane. There is a large box culvert located near the intersection with West Victoria drive. Two sewer lines, and other utilities also cross a small creek at this point, but investigations did not determine how the utilities interfaced with the box culvert. Fiber optic, and other communication lines run within the roadway along this section, as indicated by many manhole covers located in the north lane.

West from the intersection with Tavern Road, Alpine Boulevard enters an area with less development, and has fewer underground utilities located within it. Two sewer lines exit the roadway and follow Arnold road near this point. Electrical and communications lines are located overhead on poles, which are located near southern edge of pavement. There are no raised median islands along any portion of the roadway.

The portion leading west from the western intersection with Arnold Road to the intersection with Viewside lane contains a sewer line which re-enters the roadway from south and follows it to the end of the alignment. Few other utilities are located along this section.

Depending on the location along the alternative route, water would be obtained from IID in Imperial County and SDCWA in San Diego County. The route would pass by Padre Dam Reservoir [MP I8-79], El Capitan Reservoir and associated dam facilities [MP I8-82], and San Vicente Reservoir and water could also be obtained from those reservoirs.

E.1.14.2 Environmental Impacts and Mitigation Measures

Table E.1.14-2 summarizes the impacts of the Interstate 8 Alternative and Route Options for Socioeconomics. Significance criteria for the SWPL alternatives are identical to those for the Proposed Project (see Section D.14).

Table E.1.14-2. Impacts Identified – Interstate 8 Alternative – Socioeconomics

Impact No.	Description	Impact Significance
Interstate 8 Alternative Including All I-8 Route Options and Future Transmission System Expansion		
S-1	Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments	Class II, III, IV
S-2	Construction would disrupt the existing utility systems or cause a co-location accident	Class II, III
S-3	Project construction and operation would increase the need for public services and facilities	Class III
S-4	Property tax revenues from project presence would substantially benefit public agencies	Class IV
S-5	Presence of the project would decrease property values	Class III

Construction Impacts

Impact S-1: Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments (Class II for agricultural revenue, Class III for business revenue, Class IV for economic benefits)

Revenue from Business Operations. Business uses occur along the Interstate 8 route, especially around the town of Alpine, but the project would not require the removal or relocation of any business uses. Impacts on local businesses would result from degradation of views, views of construction equipment and activity, vehicular or pedestrian access restrictions, land use, air quality, and noise effects, or health and safety concerns (such as EMF). These issues are analyzed in this document in Sections E.1.3 (Visual Resources), E.1.4 (Land Use), E.1.8 (Noise), E.1.9 (Transportation and Traffic), and E.1.10 (Public Health and Safety). Where impacts for these issue areas are found to be less than significant or have been mitigated to less than significant levels, any associated loss of local business revenue impacts would not be significant. In addition, because these impacts would be short-term construction impacts and no removal of businesses would be required, these impacts would not result in significant revenue impacts (Class III). Therefore, no additional mitigation measures are recommended outside of those presented in Sections E.1.3 (Visual Resources), E.1.4 (Land Use), E.1.9 (Transportation and Traffic), and E.1.10 (Public Health and Safety) to mitigate potential impacts that would result in a substantial change to local business revenues. See Appendix 12 for the full text of the mitigation measures.

Revenue from Agricultural Operations. Construction of a new transmission line in agricultural areas of the Interstate 8 Alternative would require construction equipment to traverse agricultural land. This would temporarily restrict crop production or damage crops if activities occurred during the growing season. The restriction of crop production or damage to crops would potentially decrease revenues for the agricultural landowners whose crops would be affected by project activities (Class II). As discussed in Section E.1.6 (Agricultural Resources), land under active agricultural operation would be impacted by construction activities. This would involve the construction and/or expansion of access roads, the installation of tower structures and wires, and the presence/staging of construction equipment and vehicles. Since impacts to Active Agricultural Operations would be less than significant with incorporation of APMs and mitigation and farmers would be compensated for any significant crop losses (APM LU-3), any associated impacts to crop revenues would be less than significant. Therefore, no additional mitigation measures are recommended outside of Mitigation Measures AG-1a and AG-1c presented in Section E.1.6 (Agricultural Resources) to mitigate potential impacts that would result in a substantial change to local agricultural revenues. See Appendix 12 for the full text of the mitigation measures.

Economic Benefit. Employment of construction personnel would be beneficial to local businesses and the regional economy through increased expenditure of wages for goods and services. Personnel for construction would be drawn from local populations in Imperial and San Diego Counties, creating new temporary and permanent employment in these counties. A limited number of construction personnel would require temporary housing, likely in local hotels, and would purchase food, beverages, and other commodities, which would provide economic benefit to the local economy (Class IV).

Mitigation Measures for Impact S-1: Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments

AG-1a **Avoid interference with agricultural operations.**

AG-1c **Coordinate with grazing operators.**

Impact S-2: Construction would disrupt the existing utility systems or cause a collocation accident (Class II)

Construction of the Interstate 8 Alternative has the potential to disrupt existing collocated utility lines during underground and overhead construction. The overhead 500 kV alternative route would parallel the existing 500 kV SWPL #1 line for almost 36 miles. After probing within the street or street shoulder, a route for the alignment within the Alpine Boulevard easement (and/or the parallel to I-8 with the Buckman Springs Underground Option) would be defined such that it would not affect existing utilities. Although there is adequate space in the roadway, because underground line construction involves more construction in close proximity to existing utilities on a mile-per-mile basis than overhead construction, the chances of underground line construction activities causing an accidental utility service interruption are greater than for overhead construction. Trenching in the public ROW could accidentally damage one or more existing utilities along the underground route. Therefore, there would be potential for service interruptions of these utilities or other underground utilities in any of the roadways along this route.

Some service disruptions during construction would be potentially unavoidable along the alternative. These disruptions would occur while the transmission line and vaults are installed in the trench and the interrupted utility is reconnected around the new transmission line. As described above, intentional service interruption during construction would be unavoidable and without notification of the public would significantly hinder activities in the surrounding areas. These impacts are considered potentially significant, but can be mitigated to less than significant levels (Class II) with the implementation of Mitigation Measure S-2a (Notify public of utility service interruption).

Where the electrical transmission duct bank would cross or run parallel to other substructures that operate at normal soil temperature (gas lines, telephone lines, water mains, storm drains, sewer lines), a minimal radial clearance of 12 and 24 inches would be required, respectively. Ideal clearances would be 2 to 5 feet. Where duct banks cross or run parallel to substructures that operate at temperatures significantly exceeding normal soil temperature (other underground transmission circuits, primary distribution cables, steam lines, heated oil lines), additional radial clearance may be required. Preliminary engineering investigations have not identified any underground utilities that operate at high temperatures. Clearances and depths would meet requirements set forth with Rule 33.4 of CPUC GO-128.

Under PSU-APM-1, SDG&E would coordinate with all utility providers with facilities located within or adjacent to the project to ensure that design does not conflict with other utilities. With implementation of PSU-APM-2 (which has similar requirements to California Government Code §§4216-4216.9), Underground Service Alert would be notified a minimum of 48 hours in advance of earth-disturbing

activities in order to identify any buried utility lines. Compliance with California Government Code §§4216-4216.9 (see Anza-Borrego Link impact discussion in Section D.14.5 for more detail), GO-128, and APMs PSU-APM-1 and PSU-APM-2 would reduce the likelihood of accidental disruptions; however, accidental disruptions could still occur (especially during the underground segment). This impact is considered potentially significant, but can be mitigated to less than significant levels (Class II) with the implementation of Mitigation Measure S-2b (Protect underground utilities).

Agricultural Lands. As discussed in Section E.1.6 (Agricultural Resources), the route would cross through active agricultural lands (egg ranch, cropland, grazing lands, livestock, and a nursery). On off-road agricultural lands, there is the potential to accidentally disrupt underground irrigation pipes and/or drain tile systems during excavation or other ground disturbing construction activities (Class II). However, as discussed in Section E.1.6, Mitigation Measure AG-1a would require that SDG&E coordinate with property owners and tenants to ensure that project construction would be conducted so as to avoid interference with agricultural operations, as well as existing equipment and irrigation systems. Implementation of Mitigation Measure AG-1a would reduce impacts to Active Agricultural Operations and disruption to existing agricultural irrigation and/or tiling systems to less than significant levels. See Appendix 12 for the full text of the mitigation measures.

See Appendix 12 for the full text of the mitigation measures.

Mitigation Measure for Impact S-2: Construction would disrupt the existing utility systems or cause a collocation accident

AG-1a **Avoid interference with agricultural operations.**

S-2a **Notify public of utility service interruption.**

S-2b **Protect underground utilities.**

Impact S-3: Project construction and operation would increase the need for public services and facilities (Class III)

Because construction activities and techniques would be identical to the Proposed Project, water usage, solid waste generation, and public services requirements would be similar for this alternative on a per-mile/structure basis for overhead and underground construction. Estimated water usage and solid waste generation for the Proposed Project is discussed in Section B (Project Description).

Water. An average of 27,000 gallons per day of water would be used for dust control and 36 gallons/yard³ of water would be used for tower construction (including concrete production). This quantity would be reduced with use of soil binders, as specified in Mitigation Measure AQ-1a in Section E.1.11 (Air Quality). Water would also be required for concrete for tower foundations. Depending on the location along the alternative route, water would be obtained from IID in Imperial County and SDCWA in San Diego County. In 2005, IID delivered 2,465,013 acre-feet of water for agriculture and the maximum consumptive use was 3.1 million acre-feet of water (at Imperial Dam) (IID, 2005). The San Diego County Water Authority (SDCWA) provides up to 97 percent of the water used in the San Diego County region, importing from a single supplier, the Metropolitan Water District (MWD) of Southern California (SDG&E, 2006a). In addition, the route would pass by Padre Dam Reservoir [MP I8-79], El Capitan Reservoir and associated dam facilities [MP I8-82], and San Vicente Reservoir and water could also be obtained from these reservoirs. Similar to the Proposed Project, water use during project construction would be a comparatively small amount of the total water supply for the jurisdictions affected as construction proceeds along the linear extent of the route. There would be no change in the ability of the water suppliers to serve the project area demands (Class III).

Although the impact would be less than significant, reclaimed water would also be available from surrounding districts. There are 22 recycled water facilities within SDCWA's territory alone. SDG&E would have to contract with the providers to obtain reclaimed water where it is available, and its use would reduce the amount of potable water needed from local water districts along the route. In the event that water suppliers are not able to supply the full amount of water required during construction in the summer months, alternative means of procuring water and/or reducing water usage would be available as not to significantly impact water suppliers. For example, the use of soil binders (see Mitigation Measure AQ-1a) and reclaimed water would reduce water usage, and nearby districts have available water to serve the Proposed Project if necessary. No mitigation is required; however, implementation of Mitigation Measure S-3b (Use reclaimed water), would further reduce impacts on local and regional water supplies by encouraging use of reclaimed water where possible.

Solid Waste. A percentage of excavated material would be clean and dry and would be spread along the ROW. Under this alternative there would be no structure removal. The closest landfills along the length of the route would be the (CIWMB, 2007):

- Allied Imperial Landfill (104 East Robinson Road) that allows a maximum permitted throughput of 1,135 tons/day and has a remaining capacity of 2,105,500 cubic yards
- Imperial Solid Waste Site (1705 West Worthington Road) that allows a maximum permitted throughput of 207 tons/day and has a remaining capacity of 183,871 cubic yards
- Las Pulgas Landfill (Camp Pendleton) that allows a maximum permitted throughput of 270 tons/day and has a remaining capacity of 9,150,000 cubic yards
- Otay Landfill (1700 Maxwell Road, Chula Vista) that allows a maximum of 5,830 tons/day and has a remaining capacity of 33,070,879 cubic yards
- Ramona Landfill (20630 Pamo Road) that allows a maximum of 295 tons/day and has a remaining capacity of 690,000 cubic yards
- Sycamore Sanitary Landfill (8514 Mast Boulevard) that allows a maximum of 3,965 tons/day and has a remaining capacity of 47,388,428 cubic yards. The Sycamore Sanitary Landfill accepts asbestos, contaminated soil, mixed municipal waste, sludge (biosolids), agricultural, dead animals, tires, shreds, and wood waste (including treated wood).

Due to the number and capacity of landfills serving the Interstate 8 Alternative area, capacity for materials generated from construction would be available. Estimated solid waste generation for excavation and other construction activities is listed in Section B.4.9 (Removal of Facilities and Waste Disposal) for the Proposed Project. It is assumed that the alternative would generate a similar quantity solid waste on a per-mile basis. However, because there would be less removal of existing facilities and the route would be shorter overall the total waste generation may also be reduced. In addition, recycling activities would greatly reduce the quantity of construction-related materials transported to local landfills.

As the waste generated by construction would occur over an extended period and would be dispersed among the various landfills serving the entire project route, the daily waste exported off site would be a fraction of the maximum daily throughput for any of the landfills listed above and the landfills have adequate remaining capacity. The Sycamore Sanitary Landfill would accept any contaminated soil, if encountered. Therefore, construction waste generated by the Proposed Project would not substantially affect the remaining capacities of local landfills to serve local demands (Class III). Although impacts to solid waste facilities would not be significant (Class III) and no mitigation is required, to further reduce adverse effects of the cumulative volume of waste, Mitigation Measure S-3a (Recycle construction waste)

would be recommended for implementation to ensure that maximum recycling activities would occur. See Appendix 12 for the full text of the mitigation measures.

Fire Protection Services. Any increase in potential fire hazards resulting from construction would increase temporary demands for fire protection services and is discussed in Section E.1.15 (Fire and Fuels Management).

Mitigation Measure for Impact S-3: Project construction and operation would increase the need for public services and facilities

S-3a **Recycle construction waste.**

S-3b **Use reclaimed water.**

Operational Impacts

From an operational perspective, presence of the transmission line and associated facilities would not disrupt actual use of business properties or structures for the Interstate 8 Alternative. Access to all businesses would be fully restored once construction of the project is complete. The transmission line would be located near business properties, but it would not remove any businesses along the route or cause any use to change. In light of the aforementioned reasons, no business-related impacts would occur and there would be no substantial change in revenues during operation (Impact S-1). This operational impact is not discussed further for the various options set forth below.

Increased demands on emergency services would occur if operation of an alternative would increase the risk of wildland fires. Fire risk related to operation of transmission lines is discussed in greater detail in Section E.1.15 (Fire and Fuels Management) and is not addressed in this section. There is also the potential for a socioeconomic effect on local communities and other values at risk as a result of fire hazard, because a project-related fire or a fire that grows larger as a result of the presence of the project would have a significant effect on local communities. Cost of fire suppression is also discussed in Section E.1.15 (Fire and Fuels Management) and is not addressed here.

Impact S-3: Project construction and operation would increase the need for public services and facilities (Class III)

During operation and maintenance, insulator washing, which would occur a maximum of twice a year, would require 300 gallons of water per structure and 3,000 gallons of water per day. Water would be trucked to the individual structures from the operating IID power plant in El Centro and the SDG&E Kearny O&M facility (depending on location); however, compared to water usage during project construction and overall available supply from these sources and surrounding water suppliers, water for washing would be minor and impacts on existing resources and suppliers would be less than significant (Class III).

Impact S-4: Property tax revenues and/or fees from project presence would substantially benefit public agencies (Class IV)

Local property tax revenues are a function of tax rates charged within the affected jurisdictions. Like with the Proposed Project, SDG&E's property taxes would increase as a result of the alternative route on private lands. Cleveland National Forest and BLM would receive no tax revenue from the installation of the project on Forest lands, because local tax revenues do not accrue on federal lands. However, CNF and BLM do collect fees annually for ROW Grants. An annual land use rent is determined from a

Linear ROW Fee Schedule (inflation adjusted). The CY 2007 fee for an electric line ROW on federal land in San Diego County is \$43.81 per acre of ROW per year (CNF, 2007a; BLM, 2007). In addition, BLM would receive \$14.60 per acre for a ROW in Imperial County (BLM, 2007). Linear ROW fees for both agencies go direct to the U.S. Treasury's General Fund.

The alternative would not result in an adverse change in public resource revenue. Furthermore, the Interstate 8 Alternative would not preclude or limit the operations of any public agency or result in a change in revenue to any public agencies. Minor increases to public agency revenues as a result of the Interstate 8 Alternative are considered a beneficial (Class IV) impact. Therefore, no mitigation measures are recommended.

Impact S-5: Presence of the project would decrease property values (Class III)

During the public scoping process for the Proposed Project, the public expressed a great deal of interest and concern regarding the potential impacts of transmission line projects on property values. As such, the discussion of Impact S-5 under the Imperial Valley Link (see Section D.14.5) addresses in detail the issues associated with the potential for impacts on property values and industrial facilities such as transmission lines and provides detailed background information based on extensive literature review and the property value issues of past similar projects. As also discussed in Section D.14.5, incremental effects on property values that may result from the changes resulting from this project would be very small, would diminish over time, and would be very difficult to quantify. Based on the studies discussed under Impact S-5 in Section D.14.5, it is concluded that the I-8 Alternative would not generate effects that would significantly impact property values (Class III). Although not required because the impact is less than significant, it should be noted that implementation of mitigation measures in the Visual Resources section (Section E.1.3), such as Mitigation Measures V-3a (Reduce visual contrast of towers and conductors) and other visual resources mitigation specific to Key Viewpoints, would help to reduce the visual impacts of the project, which is one of the components perceived to affect property values. See Appendix 12 for the full text of the mitigation measures.

E.1.14.3 Interstate 8 Alternative Substation

The Interstate 8 Alternative Substation would be used if the adopted transmission line route requires a conversion to 230 kV to allow the underground segment through Alpine. It would be located southwest of Descanso on private land adjacent to Cleveland National Forest land. The 500 kV line would enter the substation from the east, and a double-circuit 230 kV transmission line would exit the substation to the west after conversion from 500 to 230 kV. The socioeconomic, public services, and utilities setting would be the identical to that for the Interstate 8 Alternative. The impacts of the substation itself would have the same impacts to those discussed for the Interstate 8 Substation under the Interstate 8 Alternative, except the location of the substation would be transferred to a different area.

However, due to the large footprint that would potentially be taken out of active grazing operation with construction and operation of the substation, the alternative would result in potential impacts to agricultural revenues during both construction and operation of the substation (Class II). Mitigation measures would be implemented under Impact AG-3 (Operation would permanently interfere with Active Agricultural Operations) in Section E.1.6 in the Draft EIR/EIS to reduce impacts to grazing operations during operation of the transmission line to a less than significant level. Mitigation Measure AG-1a (Avoid interference with agricultural operations) would require SDG&E to coordinate with property owners and tenants to ensure that project construction and operations would be conducted so as to avoid or minimize interference with agricultural operations. In addition, Mitigation Measure AG-

1c (Coordinate with grazing operators) would require SDG&E to coordinate with farm owners to ensure that the project would minimize impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates) and impacts to facilities, as well as related effects such as ingress/egress and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access). Crop losses would be compensated under APM LU-3 (see Table D.6-6, Applicant Proposed Measures – Agricultural Resources in the Draft EIR/EIS), and any compensation for ranching operations during road maintenance would be determined between SDG&E and the farm owner during the coordination required as part of Mitigation Measure AG-1a and AG-1c. With implementation of these measures, revenue impacts relating to the disruption of grazing operations would be reduced to a less than significant level.

The impacts of undergrounding through Alpine have also been discussed in Section E.1.14.1 under Impact S-2 (Construction would disrupt the existing utility systems or cause a collocation accident), because the potential to disturb existing utilities would be greater with underground construction in roadways where co-located utilities exist. This impact is considered potentially significant, but can be mitigated to less than significant levels (Class II) with the implementation of Mitigation Measure S-2b (Protect underground utilities). Once constructed, the underground line would cause no socioeconomic operational effects to revenues or property values.

E.1.14.4 Interstate 8 Route Options

Campo North Route Option

In response to a request from the Campo Tribe, an option is considered in which the route would remain north of the freeway in the vicinity of the 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. The socioeconomic, public services, and utilities setting would be similar to the Interstate 8 Alternative in this area (see Section E.1.14.1). Although Impact S-3 would be less than significant (Class III) with both the Interstate 8 Alternative and the Campo North Route Option, the option would shorten the route by about 0.5 miles, which would reduce ground disturbance and water requirements for construction. The remaining impacts would be the same as for the Interstate 8 Alternative discussed above.

Buckman Springs Underground Option

This option would require construction of two overhead/underground transition stations for the 500 kV line, and installation of an underground route segment for approximately 1.9 miles. 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. There are no businesses in the vicinity that would be affected by construction of this option. Ground disturbance would be greater for this 1.9-mile underground option, which would increase the potential to disturb existing underground utilities (Impact S-2) and would require more water from public service providers for dust suppression during construction activities (Impact S-3). With implementation of Mitigation Measures S-2a (Notify public of utility service interruption), S-2b (Protect underground utilities), impacts would be less than significant (Class II).

This short segment would be a comparatively small fraction of the total water supply for SDCWA, which supplies 97 percent of water to San Diego County, and would not change its ability in serving the

project area demands (Class III). Although the impact would be less than significant already, reclaimed water would also be available from SDCWA and other sources. SDG&E would have to make special provisions with the providers to obtain reclaimed water where it is available, and its use would reduce the amount of potable water needed from local water districts along the route. Therefore, in the event that water suppliers are not able to supply the full amount of water required during construction in the summer months, alternative means of procuring water and/or reducing water usage would be available as not to significantly impact water suppliers during this situation (Class III).

The use of soil binders (see Mitigation Measure AQ-1a) and reclaimed water would reduce water usage, and nearby districts have available water to serve the project if necessary. No mitigation is required; however, implementation of Mitigation Measure S-3b (Use reclaimed water), would further reduce impacts on local and regional water supplies by encouraging use of reclaimed water where possible. Once underground there would be no impacts to revenues or public services.

West Buckman Springs Option

This option would minimize hang gliding and paragliding impacts by moving the transmission line to a location west of Buckman Springs Valley, rather than east where the route is currently proposed. Due to close proximity, the socioeconomic, public services, and utilities setting would be the same as for the Interstate 8 Alternative. Likewise, the impacts would be the same as discussed in Section E.1.14.1 above (see Impacts S-1 through S-5).

South Buckman Springs Option

This option would avoid passing through Backcountry Non-Motorized land use zones within the CNF that occur north and east of Interstate 8 and would cross one existing SDG&E transmission line. The socioeconomic, public services, and utilities setting would be the same as for the Interstate 8 Alternative and the eastern end of the Modified Route D Alternative (see Section E.4.14) due to its proximity. Likewise, the impacts would be the same as discussed in Section E.1.14.1.

Chocolate Canyon Option

This option would move the overhead transmission line lower on the slope of the hill and would utilize existing access roads to El Capitan Reservoir. The socioeconomic, public services, and utilities setting would be the same as for the Interstate 8 Alternative due to its proximity. Likewise, the impacts would be the same as discussed in Section E.1.14.1 above (see Impacts S-1 through S-5).

E.1.14.5 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 and a 500 kV circuit. Only two 230 kV circuits are proposed by this alternative at this time, but construction of additional 230 kV circuits and a 500 kV circuit 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

The future 230 kV 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

Please note 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.1.14.1 and E.1.14.2 for a description of the Environmental Setting and Mitigation Measures for Socioeconomics for the Interstate 8 Alternative. The future transmission line route would follow the Interstate 8 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 Sections D.14.2, D.14.8, and D.14.9 for a description of the Environmental Setting and Mitigation Measures for Socioeconomics 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.14.11 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 I8-70.3. The Environmental Setting and Mitigation Measures for Socioeconomics of the Route D Alternative can be found in Section E.3.14.1 and in Section E.3.14.2. It should be noted, however, that the Route D Alternative Socioeconomic 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.

The Route D corridor would connect with the Proposed Project corridor at Milepost 114.5, and could then follow either: (1) the Proposed Project southwest 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 northeast 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) to connect with SCE's existing Serrano-Valley 500 kV line in Riverside County. See Section D.14.2 for more information on the Socioeconomic setting of the Central, Inland Valley, and Coastal Links of the Proposed Project.

For the Socioeconomic 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.14.11.

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 Socioeconomic setting and impacts along the Modified Route D corridor see Section E.4.14. At MP MD-26, new 230 or 500 kV circuits would turn west and connect with the northernmost segment of the West of Forest Alternative 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 Interstate 8 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.

MP MD-26 to MP I8-79

Jurisdictions along this 230 and 500 kV future transmission route include U.S. Forest Service, Caltrans, San Diego County Water Authority (SDCWA), and the County of San Diego. Demographics, housing, and public services and utilities providers information would be the same as the Proposed Project in San Diego County which is described in Section D.14.2. The transmission route would be adjacent to the town of Alpine and the community of Harbison Canyon. Demographic information for the town of Alpine is described in Section E.1.14.1. There are no schools in Harbison Canyon.

Table E.14-3 identifies the housing and employment statistics for Harbison Canyon in San Diego County.

Table E.1.14-3. Demographic Characteristics – 230 or 500 kV Future Transmission Route: MP MD-26 to MP I8-79

Location	2000 Estimated Population	2000 Estimated Housing Units	2000 Estimated Employment
Harbison Canyon	3,645	1,311 Vacancy Rate: 2.8% (37 units)	Labor Force: 1,930 persons Construction Occupations: 307 persons Unemployed: 65 persons

* Year 2000 Census data are presented, because 2005 American Community Survey (ACS) data are not available for this geographic location. Source: U.S. Census 2000: 2005 American Community Survey, <http://factfinder.census.gov> accessed June 15, 2007.

This route would be located entirely within existing right-of-way.

Environmental Impacts – 230 or 500 kV Future Transmission System Expansion

Construction Impacts

Impact S-1: Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments (Class II for agricultural revenue, Class III for business revenue, Class IV for economic benefits)

Revenue from Business Operations. A wide range of land uses are near the Future Expansion routes, including agriculture and/or grazing operations, industrial, open space, public roadways, residential, and a reservoir. While business uses occur along the route, the project would not require the removal or relocation of any business uses because the routes would all be almost entirely within existing transmission corridors.

Impacts on local businesses would result from visual impacts, vehicular or pedestrian access impacts, land use impacts, noise, air emission, or health and safety concerns (such as EMF) along the existing corridors. These issues and potential impacts are analyzed extensively in this document in Sections

E.1.3 (Visual Resources), E.1.9 (Transportation and Traffic), E.1.4 (Land Use), and E.1.10 (Public Health and Safety). Where impacts for these issue areas are found to be less than significant or have been mitigated to less than significant levels, any associated local business revenue impacts would not be significant. In addition, because most impacts would be short-term construction impacts and no removal of businesses would be required, these impacts would not result in significant revenue impacts (Class III). Therefore, no specific mitigation measures are recommended outside of those presented in Sections E.1.3 (Visual Resources), E.1.9 (Transportation and Traffic), E.1.4 (Land Use), and E.1.10 (Public Health and Safety) to mitigate potential impacts that would result in a substantial change to local business revenues.

Revenue from Agricultural Operations. Construction activities in the existing ROWs and new access roads would not preclude the permanent agricultural use of lands (see Section E.1.6 for a discussion of the agricultural lands through which the routes would pass), except at new tower locations. Steel poles would have a disturbance area of 64 square-feet and lattice towers would have a disturbance area of 79 square-feet. Construction of new 230 or 500 kV towers in these areas would require construction equipment to traverse the agricultural land. Specifically, this would involve the construction and/or expansion of access roads, the installation of tower structures and wires, and the presence/staging of construction equipment and vehicles. This would temporarily restrict grazing, crop production or damage crops if activities occurred during the growing season. The restriction of crop production or damage to crops would potentially decrease revenues for the agricultural landowners whose crops would be affected by project activities (Class II).

Impacts to agricultural would be significant, however, as described for Impact AG-1 in Section E.1.6.4 implementation of Mitigation Measures AG-1a, AG-1c, AG-1d, L-1d, L-1e, and L-1f would reduce impacts to be less than significant. These mitigation measures would reduce the effects of construction on agricultural businesses by avoiding placement of facilities (such as new access roads) in active agricultural areas, locating facilities along the edge of active agriculture wherever feasible, compensating farmers for project-related losses of crops or other pertinent agricultural resources, and notifying farmers of construction activities. With the implementation of these mitigation measures, impacts would be less than significant (Class II). The full text of the mitigation measures can be found in Appendix 12.

Economic Benefit. Alternatively, employment of construction personnel would be beneficial to local businesses and the regional economy through increased expenditure of wages for goods and services. Personnel for construction would be drawn from local populations in San Diego County, creating new temporary and permanent employment in these counties. A limited number of construction personnel would require temporary housing, likely in local hotels, and would purchase food, beverages, and other commodities, which would provide economic benefit to the local economy (Class IV).

Mitigation Measures for Impact S-1: Project construction and/or transmission line presence would cause a change in revenue for businesses, tribes, or governments

- AG-1a** **Avoid interference with agricultural operations.**
- AG-1c** **Coordinate with grazing operators.**
- AG-1d** **Compensate farmers for lost crops along ROW. [APM LU-3]**
- L-1d** **Provide advance notice and appoint public affairs officer. [APM LU-1]**
- L-1e** **Notify property owners and provide access. [APM LU-4]**
- L-1f** **Flag ROW boundary and environmentally sensitive areas. [APM LU-6]**

Impact S-2: Construction would disrupt the existing utility systems or cause a collocation accident (Class II)

Construction of the future transmission lines and related infrastructure has the potential to disrupt existing collocated utility lines, such as other electrical utility lines within the existing ROW. As this area is so remote, the future transmission lines would cross few other transmission lines. However, where the future transmission lines do cross other transmission lines, such as near the town of Harbison Canyon there would be potential for service interruptions of these utilities during construction of the future transmission project.

Construction of tower foundations would not be within any roadways, thereby avoiding any utilities in roads. While a collocation accident would be significant, Mitigation Measure S-2c would require coordination with all utility providers with facilities located within or adjacent to the construction area to ensure that the project design would not conflict with these other utilities. Because the future transmission lines would all be overhead, there would be very little ground disturbance of heavily used underground utility corridors, such as roads. Therefore, with implementation of Mitigation Measure S-2c, any significant impacts related to a collocation accident or utility disruption would be less than significant (Class II).

Agricultural Lands. On off-road agricultural lands (see Section E.1.6.4), there is the potential to accidentally disrupt underground irrigation pipes during excavation or other ground disturbing construction activities. However, with Mitigation Measure AG-1a (Avoid interference with agricultural operations), SDG&E must coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid interference with agricultural operations. Implementation of Mitigation Measure AG-1a would reduce impacts to Active Agricultural Operations and disruption to existing agricultural irrigation systems to less than significant levels (Class II).

Mitigation Measure for Impact S-2: Construction would disrupt the existing utility systems or cause a collocation accident

AG-1a **Avoid interference with agricultural operations.**

S-2c **Coordinate with utility providers. [PSU-APM-1, PSU-APM-2]**

Impact S-3: Project construction and operation would increase the need for public services and facilities (Class II for emergency services, Class III)

Water. Water use would be similar to the 230 kV and 500 kV construction of the Proposed Project (see Table B-5) but could differ based on factors, such as construction technologies, road conditions, weather conditions, access road requirements, etc. at the time that construction of the future circuits would occur. Among other factors, use would vary depending on the implementation of air quality mitigation measures that may require the use of soil binders on unpaved roads, staging areas, and parking areas, which would substantially minimize water use. Non-potable water would be used for dust control when available. Comparatively small amounts of potable water would be needed for sanitary and drinking purposes. Water use during project construction would be a small fraction of the total water supply for the jurisdictions affected by the future transmission lines (similar to the proposed route) and like the proposed route it would not change the ability of the water suppliers identified previously in serving the project area demands (Class III).

SDG&E would have to contract with providers to obtain reclaimed water where it is available, and its use would reduce the amount of potable water needed from local water districts. With availability for use of soil binders (see Mitigation Measure AQ-1a) and reclaimed water, in addition to nearby districts

with available water, in the event that water suppliers are not able to supply the full amount of water required during construction in the summer months, alternative means of procuring water and/or reducing water usage would be available as not to significantly impact water suppliers (Class III). No mitigation is required; however, implementation of Mitigation Measure S-3b (Use reclaimed water), would further reduce impacts on local and regional water supplies by encouraging use of reclaimed water where possible.

Solid Waste. The future transmission lines project construction would generate waste similar in quantity to the Proposed Project, largely in the form of soil, concrete from existing foundations, utility line cable, and scrap metal/wood from the replacement of existing towers (if needed to accommodate the new 230 kV and 500 kV line). Section B.4.9 (Removal of Facilities and Waste Disposal) describes the removal and disposal process. Waste management companies that serve San Diego County are discussed under Section D.14.2. The following landfills accommodate San Diego's waste disposal needs: Ramona Landfill, Borrego Springs Landfill, Otay Landfill, West Miramar Sanitary Landfill, Sycamore Sanitary Landfill, San Onofre Landfill, and Las Pulgas Landfill. The total amount landfilled per year is 1,987,886 tons. Poway contracts with EDCO for garbage and recyclables collection. The Sycamore Sanitary Landfill and Otay Landfill accommodate Poway's waste disposal needs. The total amount landfilled per year is 67,067 tons (SDG&E, 2006a). As discussed under the Proposed Project, there is adequate capacity currently remaining at existing facilities.

The future transmission line project routes are served by a variety of waste management agencies and landfills. Due to the number and capacity of landfills serving the project area, capacity for materials generated from construction of the future transmission lines would be available. Because the exact amount of material recycling is unknown, the total amount of waste requiring landfill disposal is unknown. Recycling activities would greatly reduce the quantity of construction-related materials transported to local landfills.

As the waste generated by the future transmission lines would occur over an extended period and be dispersed among the various landfills serving the entire project route(s), the daily waste exported off site would be a minute fraction of the maximum daily throughput for any of the landfills. Therefore, construction waste generated by the Future Expansion would not substantially affect the remaining capacities of local landfills to serve local demands (Class III). Mitigation Measure S-3a (Recycle construction waste) would minimize this impact further.

Public Services. *Construction Workers Demands.* Because of the large available labor pool in San Diego County and nearby areas, few construction workers are expected to temporarily relocate to the area. These workers likely live in the San Diego area and may already work for SDG&E. Therefore, they would not generate additional population that would exceed the capacity of local public service providers listed in Section D.14.2 for the Proposed Project. Construction of the 230 kV or 500 kV lines would not result in a direct increase in the local population, leading to long-term demands to local public services. Nor would the transmission line construction result in any long-term requirements that would place a permanent increased demand on emergency service providers that would result in new or expanded facilities. Therefore, the temporary addition of construction personnel would not substantially increase any demands on schools or hospitals or lower the level of service for fire protection or police protection in the long-term and it would not require the construction or expansion of facilities or services (Class III).

Fire Hazards. Section E.1.15 (Fire and Fuels Management) discusses how temporary construction activities would result in an increase in potential fire hazards and would increase temporary demands for fire protection services.

Emergency Services. Construction of the project and equipment would impede emergency access through the area. With implementation of Mitigation Measure S-3d, the applicant would be required to coordinate construction schedules, lane closures, and other activities associated with installation of the transmission lines with emergency and police services to ensure that disruption to access is minimized as not to significantly affect response times. Impacts to emergency access are discussed under Section E.1.9 (Transportation and Traffic), which concludes that such impacts would be less than significant. Therefore, any significant impacts to emergency access and/or public services and facilities would be reduced to be less than significant (Class II).

Mitigation Measure for Impact S-3: Project construction and operation would increase the need for public services and facilities

S-3a **Recycle construction waste.**

S-3b **Use reclaimed water.**

S-3d **Coordinate construction schedule with emergency services. [PSU-APM-3]**

Operational Impacts

Increased demands on emergency services would occur if operation of the lines would increase the risk of wildland fires. Fire risk related to operation of transmission lines is discussed in Section E.1.15 (Fire and Fuels Management) and is not addressed in this section.

Impact S-3: Project construction and operation would increase the need for public services and facilities (Class III)

During operation and maintenance, insulator washing, which would periodically occur and would require water (SRPL has an estimated use of 300 gallons of water per structure). It is assumed that SDG&E would use a similar source of water as it does for the existing lines in the area, and it would be trucked to the individual structures. Compared to water usage during project construction and overall supply from surrounding districts, water for washing would be minor and impacts on existing resources and suppliers would be less than significant (Class III). No mitigation would be required.

Impact S-4: Property tax revenues and/or fees from project presence would substantially benefit public agencies (Class IV)

Local property tax revenues are a function of tax rates charged within the affected jurisdictions. SDG&E's property taxes are expected to increase as a result of the future transmission routes. The State of California Board of Equalization (BOE) assesses infrastructure facilities annually. Dispersion of property tax revenue is determined at a local level based upon the location of the taxable property. Any increase in property tax revenue as a result of the future transmission routes would result in a beneficial impact to the local economy as a result of tax revenue spending. Therefore, the future transmission routes would not result in an adverse change in public resource revenue. Furthermore, the project would not preclude or limit the operations of any public agency or result in a change in revenue to any public agencies. Potential changes to public agency revenues as a result of the future transmission routes are considered a beneficial (Class IV) impact.

Impact S-5: Presence of the project would decrease property values (Class III)

During the public scoping process for the proposed SRPL project, the public expressed a great deal of interest and concern regarding the potential impacts of transmission line projects on property values. As such, the discussion of Impact S-5 under the Imperial Valley Link (see Section D.14.5.1) addresses in

detail the issues associated with the potential for impacts on property values and industrial facilities, such as transmission lines, in an effort to provide the reader with detailed background information based on extensive literature review and the property value issues of past similar projects. It also provides a discussion on why this impact is considered to be less than significant (Class III). As such, the construction of the future transmission routes would occur almost entirely within existing transmission corridors and the incremental impacts of a new line would be even smaller. No mitigation is required.