

E.1.5 Wilderness and Recreation

The 92.7-mile Interstate 8 Alternative would traverse or be located adjacent to recreation and wilderness areas administered by Cleveland National Forest (CNF), BLM, NPS, and San Diego County, as set forth below. Refer to Figure E.1.5-1 for a map of the Interstate 8 Alternative and nearby recreation and wilderness areas. This alternative would not traverse any federal or State wilderness areas or wilderness study areas. In addition, five route options are considered in this section: the Campo North Option, three route options in the area of Buckman Springs (i.e., South Buckman Springs Option, Buckman Springs Underground Option, and West Buckman Springs Option), and the Chocolate Canyon Option. These route options are described below and illustrated in Figure E.1.5-1.

E.1.5.1 Environmental Setting

This alternative would parallel the existing SWPL 500 kV overhead transmission line to the north for approximately 35.7 miles. Along this segment that is collocated with the SWPL, the Interstate 8 Alternative would be constructed near several recreational resources on BLM lands: Dunaway Camp is located approximately 0.25 miles south of the alternative route within the Yuha Desert ACEC; the Dunaway OHV Staging Area, just south of the Dunaway Road/I-8 overpass, is approximately 0.5 miles northeast of the alternative route and ORV trails accessible from this staging area are present throughout the Yuha Desert ACEC; approximately 4.4 miles of this alternative would traverse the Plaster City ORV Area; this alternative would intersect the Juan Bautista de Anza National Historic Trail at MP I8-12 within the Plaster City ORV Area; the southern extent of Coyote Mountains Wilderness, an 18,622-acre federal wilderness area administered by BLM (BLM, 2007), is 0.3-mile north of the alternative route, near MP I8-17.5; the eastern boundary of Jacumba Wilderness, a 31,237-acre federal wilderness area administered by BLM (BLM, 2007a), would be parallel to and approximately 0.4 miles southwest of the Interstate 8 Alternative between MPs I8-23 and I8-30. Near MP I8-29, the alternative route would be located approximately 0.5 miles southwest of the southwestern extent of the Jacumba State Wilderness Area in ABDSP. Near MP I8-30.2, the alternative would turn due east and would parallel the southern border of the Table Mountain ACEC, a 4,293-acre ACEC designated by BLM for its cultural resources and sensitive fauna (BLM, 2007b), for approximately 4 miles.

At MP I8-35.5, the Interstate 8 Alternative would deviate from the SWPL and travel northwest toward CNF along the north side of Interstate 8. This segment east of CNF would be located approximately 0.25 miles southeast of the southern boundary of the Carrizo Gorge Wilderness Area, a 14,735-acre federal wilderness area (BLM, 2007c). Recreational opportunities within this wilderness area include hiking and camping. Additionally, the alternative would be located 0.7 miles southwest of the southern parcel of the Carrizo Gorge Wilderness Study Area, which is administered by BLM and is comprised of several roadless areas contiguous with the Carrizo Gorge Wilderness Area. Between MPs I8-36 and I8-37, the alternative route would traverse land owned by California Botanical Habitat, Inc. and is private property that does not provide recreational opportunities.

The Interstate 8 Alternative would enter CNF lands at MP I8-51 and travel east approximately 2.75 miles before intersecting the Pacific Crest Trail (PCT) as an overhead configuration at MP I8-55. At this point of intersection, the PCT turns sharply north and the alternative ROW would parallel the PCT immediately to the east for approximately 0.25 miles. Then, the PCT turns south toward Mexico and away from the alternative ROW. Boulder Oaks Campground, which is administered by CNF, is located along the PCT on the opposite (west) side of Interstate 8, approximately 0.5 miles west of the alternative ROW near MP I8-54. Boulder Oaks Campground has 30 developed campsites, 17 equestrian sites, and access to the PCT (CNF, 2007).

The Buckman Springs Rest Area has picnic tables, interpretive signs describing the local natural history, and a pet walking area. This rest area is located at the intersection of Buckman Springs Road and Interstate 8, at approximately MP I8-56 of the Interstate 8 Alternative. The Horse Canyon hang gliding and paragliding site is also located near the intersection of Buckman Springs Road and Interstate 8. The site includes a launch area on the ridge to the northeast of the intersection and two landing zones for hang gliding and paragliding. The hang gliding landing zone is located on private land on the northwest corner of the Buckman Springs Road/Interstate 8 intersection and the paragliding landing zone is located on the southeast corner of the intersection on CNF land. The Interstate 8 Alternative would be constructed overhead between the launch pads and the landing pads, presenting a safety risk to glider pilots.

East of the Buckman Springs area, on CNF land, the Interstate 8 Alternative would cross Bear Valley Road multiple times. Bear Valley Road is a multiple use road that is used by non-street legal vehicles between the Bear Valley ORV Staging Area, near MP I8-62.2, and Long Canyon Road, which is a loop road.

North of the Buckman Springs Area, the Interstate 8 Alternative would intersect the Secret Canyon Trail near MP I8-63.5. The Secret Canyon Trail is a 13.8-mile hiking and equestrian trail that is mostly within the Pine Creek Wilderness. Pine Creek Wilderness is a 13,000-acre federal wilderness area administered by CNF. Dispersed camping is allowed within NF wilderness with a visitor permit (CNF, 2007a). The alternative route would pass immediately adjacent to and northeast of the Pine Creek Wilderness Area.

The Interstate 8 Substation Alternative would be located on private land southwest of Descanso and north of Interstate 8 near MP I8-65. 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. There are no recreation or wilderness areas on this private parcel and the substation would not be visible to nearby recreationists in CNF. From the Interstate 8 Substation Alternative, the route would continue east, north of and roughly parallel to Interstate 8. This alternative segment between the alternative substation and MP I8-71 would not be located near any recreation or wilderness areas.

At MP I8-71, the alternative would transition underground for approximately 8.8 miles along Alpine Boulevard, just south of Interstate 8. The underground portion of the Interstate 8 Alternative would intersect the California Riding and Hiking Trail near MP I8-74.2; this trail is managed by the State of California. At MP I8-79.6, the underground double-circuit 230 kV transmission lines would transition overhead and diverge from Interstate 8 heading north through private land and San Diego County land. At MP I8-80.7, the route would turn northwest and pass within one mile of El Capitan Reservoir. There is limited, day-use recreation available at the Reservoir. Boating, fishing and water contact (e.g., waterskiing, wakeboarding, towing inflatables, and jet skiing) are only allowed on certain days of the week in limited numbers. There is no camping at the Reservoir (San Diego City DPR, 2007a).

As the Interstate 8 Alternative route continues northwest, it would intersect the Trans-County Trail twice: once on CNF and San Diego County lands, where the alternative ROW would overlap the Trail for approximately 0.3 miles near MP I8-82.6, and again at approximately MP I8-91.3 near SR67 and the San Vicente Reservoir. As described in Section D.5.2.2, the Trans-County Trail, when complete, will be a 140-mile walking, hiking and equestrian trail between the Salton Sea and the Pacific Ocean near Del Mar, California.

Figure E.1.5-1. Wilderness and Recreation Areas: Southwest Powerlink Alternatives

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The alternative route would pass within one mile of two San Diego County parks: El Monte County Park and Stelzer County Park. El Monte County Park is one of the oldest and most popular County parks. The park is 98 acres and provides ball fields, play areas, and seven reservable picnic areas for parties up to 400 people (San Diego County DPR, 2007). El Monte County Park is located near MP I8-83.5. Stelzer County Park provides diverse recreation opportunities, including bird watching, hiking, playgrounds, picnic areas, and group camping (San Diego County DPR, 2007a). This 340-acre park is located near MP I8-87.

The Blossom Valley hang gliding and paragliding site is near MP I8-84. Typically, hang glider and paraglider pilots launch from a site north of Quail Canyon Road near the Talon’s Reach Subdivision and land at a site on the south side of El Monte Road (paragliders) or across the road near the San Diego River wash (hang gliders). With appropriate atmospheric conditions, pilots fly northeast to El Cajon Mountain and return to the landing sites. This flight path requires crossing the route of the Interstate 8 Alternative, which poses a safety risk to glider pilots.

At MP I8-89.9, the alternative route would turn north-northwest, passing by San Vicente Reservoir, east of SR67, for approximately two miles. This two-mile segment would parallel the Trans-County Trail along the southern boundary of the reservoir. San Vicente Reservoir allows limited, day-use recreation, including boating, fishing, waterskiing, wakeboarding, and towing inflatables on certain days of the week. There is no camping or personal watercraft use allowed at the Reservoir (San Diego City DPR, 2007b). At MP I8-91.3, the route would cross SR67, turning northwest at MP I8-91.6 to parallel SR67 on private land until joining the Proposed Project at MP 131, just west of SR67, between San Vicente Highlands Open Space Preserve and Sycamore Canyon Open Space Preserve.

E.1.5.2 Environmental Impacts and Mitigation Measures

Table E.1.5-1 summarizes the impacts of the Interstate 8 Alternative for wilderness and recreation.

Table E.1.5-1. Impacts Identified – Alternatives –Wilderness and Recreation

Impact No.	Description	Impact Significance
Interstate 8 Alternative		
WR-1	Construction activities would temporarily reduce access and visitation to recreation or wilderness areas	Class II
WR-2	Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value	Class I
WR-3	Presence of a transmission line would permanently preclude recreational activities	Class I
WR-4	Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land	No Impact
Campo North Option – No Impacts		
Buckman Springs Underground Option – No Impacts		
West Buckman Springs Option		
WR-1	Construction activities would temporarily reduce access and visitation to recreation or wilderness areas	Class II
WR-2	Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value	Class I
WR-3	Presence of a transmission line would permanently preclude recreational activities	Class II
WR-4	Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land	No Impact

Table E.1.5-1. Impacts Identified – Alternatives –Wilderness and Recreation

Impact No.	Description	Impact Significance
Buckman South Option – No Impacts		
Chocolate Canyon Option		
WR-1	Construction activities would temporarily reduce access and visitation to recreation or wilderness areas	Class II
WR-2	Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value	Class I
WR-3	Presence of a transmission line would permanently preclude recreational activities	No Impact
WR-4	Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land	No Impact

Construction Impacts

Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas (Class II)

Construction activities for the Interstate 8 Alternative would directly affect the following recreation areas: Plaster City ORV Open Area, Juan Bautista de Anza National Historic Trail, PCT, Horse Canyon hang gliding and paragliding site, Secret Canyon Trail, Trans-County Trail, and Blossom Valley hang gliding and paragliding site. Since the alternative route traverses these recreation areas, all or a portion of the recreation areas would be closed at various times during construction activities for safety reasons. Additionally, the location of construction equipment along roadways would further preclude or constrain access to these recreation areas during construction.

The noise and presence of heavy equipment associated with project construction may temporarily reduce visitation to recreation areas. Recreationists may cancel or schedule their visits to avoid construction periods thereby resulting in temporarily reduced visitation to portions of the following recreation areas: Dunaway primitive camp and Yuha Desert ACEC, Plaster City ORV Open Area, Juan Bautista de Anza National Historic Trail, Jacumba Wilderness Area, Carrizo Gorge Wilderness Area, PCT, Boulder Oaks Campground, Horse Canyon hang gliding and paragliding site, Buckman Springs Rest Area, Pine Creek Wilderness, Secret Canyon Trail, El Capitan Reservoir, Trans-County Trail, El Monte County Park, Stelzer County Park, Blossom Valley hang gliding and paragliding site, San Vicente Highlands, Boulder Oaks Open Space Preserve, and Sycamore Canyon Open Space Preserve. Such a disturbance to recreational resources would result in significant impacts (Class II).

Construction-related impacts to these recreational resources would be mitigated to a less than significant level through implementation of Mitigation Measures WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area), WR-1b (Provide temporary detours for trail users), and WR-1c (Coordinate with local agencies to identify alternative recreation sites).

Mitigation Measures for Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas

WR-1a **Coordinate construction schedule and activities with the authorized officer for the recreation area.**

WR-1b **Provide temporary detours for trail users.**

WR-1c **Coordinate with local agencies to identify alternative recreation areas.**

Operational Impacts

Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value (Class I)

The Interstate 8 Alternative would be collocated with the 500 kV SWPL for approximately 35.7 miles within or adjacent to the Dunaway Primitive Camp and Yuha Desert ACEC, Plaster City ORV Open Area, Juan Bautista de Anza National Historic Trail, and Jacumba Wilderness Area. These areas vary dramatically in the type of provided recreation experience and thus the degree of impact sensitivity; ORV areas are typically disturbed and noisy and would not necessarily be significantly affected by the presence of a transmission line whereas wilderness areas are undeveloped and remote and highly sensitive to impact, and the PCT and Juan Bautista de Anza National Historic Trail traverse both disturbed and pristine land and are considered sensitive recreational resources.

A MP I8-35.7, the Interstate 8 Alternative would deviate from the existing SWPL transmission corridor and would require new ROW for the remainder of the alternative route. As described in the preceding section, this segment of the alternative would traverse or be located adjacent to a variety of recreation areas, including wilderness areas, County parks, hang gliding and paragliding areas, campgrounds, hiking trails, open space preserves, and day-use reservoirs.

As described in Section 3.12.1, Visual Resources, the Interstate 8 Alternative would be built through a region that does not presently contain structures of similar scale and character as the 500 kV towers. As such, long-term, operational visual impacts would be experienced by viewers throughout most of the length of this alternative. Additionally, corona noise from the 500 kV line would be audible up to 500 feet from the edge of the ROW (refer to Section D.8, Noise). In areas with elevated ambient noise levels (e.g., ORV parks), corona noise would not be noticeable, but in quiet areas this noise would be disturbing.

Presence of the transmission structures and corona noise from the 500 kV conductors would diminish the value of the recreational experience along the Interstate 8 Alternative route, resulting in significant and unmitigable impacts (Class I). Although it would not reduce the severity of the impact to less than significant levels, Visual Resources Mitigation Measures V-3a (Reduce visual contrast of towers and conductors), V-45a (Prepare and implement Scenery Conservation Plan) and Noise Mitigation Measure N-3a (Respond to complaints of corona noise) would be implemented to reduce recreation impacts along the Interstate 8 Alternative. The full text of the visual and noise mitigation measures presented below is provided in Appendix 12, along with the full text of all other mitigation measures. Mitigation Measure V-45a is specific to Forest Service land.

One of the access roads required for construction and continued maintenance of the overhead transmission line along the Interstate 8 route near MP I8-83 would be collocated with the Trans-County Trail for approximately 0.6 miles. Along this segment, the Trans-County Trail would be graded and widened for use as a 20-foot-wide access road. The road/trail would experience a high level of use by equipment during construction activities, but usage would significantly decrease after construction as operation and maintenance vehicles would only need to access the ROW during inspection and repair, as described in Section B.5.1. Although the trails would not be permanently precluded from use by hikers, the occasional and infrequent presence of maintenance vehicles and equipment would diminish the recreational value of this segment of the trail, resulting in a significant impact. However, it is possible that the ROW can be accessed using new access roads that are not on the trail. The impact to the recreational value of the Trans-County Trail would be lessened through Mitigation Measure WR-3a (Coordinate tower and road locations with the authorized officer of the recreation area). Since the new access roads required to avoid the Trans-County Trail would be constructed on CNF and private land,

it is at the discretion of the CNF in coordination with affected private land owners and the officer of the Trans-County Trail whether the new access roads for this portion of the Interstate 8 alternative should be consolidated to the Trans-County Trail, which is already disturbed and would require further modification to be suitable as an access road, or construct new access roads through undisturbed areas outside of the trail.

Mitigation Measures for Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value

V-3a Reduce visual contrast of towers and conductors.

V-45a Prepare and implement Scenery Conservation Plan.

N-3a Respond to complaints of corona noise.

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.

Impact WR-3: Presence of a transmission line would permanently preclude recreational activities (Class I)

The Interstate 8 Alternative would cross the Juan Bautista de Anza National Historic Trail (MP I8-12), PCT (MP I8-55), Secret Canyon Trail (MP I8-63.5), and Trans-County Trail (MP I8-82.6 and MP I8-91.3). If transmission support structures were sited on the trail, recreationists would be precluded from these locations. Exact locations of transmission support structures have not been determined. Although preliminary locations have been proposed, these may be modified based on site-specific environmental conditions (i.e., slope stability, presence of sensitive biological or cultural resources). This impact analysis, therefore, conservatively assumes that structures would be sited on trails. Impacts to existing recreational resources that resulted from locating new towers on or immediately adjacent to a trail would be significant. Preclusion of the use of trails would be mitigated to a less than significant level through implementation of Mitigation Measure WR-3a (Coordinate tower and road locations with the authorized officer for the recreation area).

As described above, the Interstate 8 Alternative would be constructed overhead between the launch pads and the landing pads of the Horse Canyon and Blossom Valley hang gliding and paragliding sites. The location of the overhead conductors would present a serious safety risk to glider pilots. As such, recreational pilots would be permanently precluded from the Horse Canyon and Blossom Valley hang gliding and paragliding sites, resulting in a significant, unmitigable impact (Class I).

As described below, construction of either the West Buckman Springs Option or the Buckman Springs Underground Options would avoid impacts to the Horse Canyon hang gliding and paragliding site, but there is no available mitigation for preclusion of the hang gliding and paragliding at the Blossom Valley site.

Mitigation Measure for Impact WR-3: Presence of a transmission line would permanently preclude recreational activities

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.

Impact WR-4: Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land (No Impact)

The Interstate 8 Alternative ROW would not traverse any wilderness areas or WSAs. As such, direct impacts to these resources would not occur.

E.1.5.3 Interstate 8 Alternative Substation

As described in Section E.1.5.1, the Interstate 8 Substation Alternative would be located on private land southwest of Descanso and north of Interstate 8 near MP I8-65. 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. There are no recreation or wilderness areas on this private parcel and the substation would not be visible to nearby recreationists in CNF. As such, impacts to recreation or wilderness from construction or operation of the Interstate 8 Substation Alternative would not occur.

E.1.5.4 Interstate 8 Route Options

Campo North Option

The Campo North Option would remain north of Interstate 8 in the vicinity of the wind farm instead of spanning the freeway to the south and returning to the north side of the freeway. This alternative option would pass immediately adjacent to the southernmost wind turbine in the Kumeyaay Wind Energy Project, near MP I8-45 and just north of the Caltrans Interstate 8 ROW. This alternative option would neither traverse any recreation or wilderness areas nor would it be constructed along any access routes to recreation areas. As such, construction or operation-related impacts from the Campo North Option to recreation or wilderness areas would not occur.

Buckman Springs Underground Option

The Buckman Springs Underground Option would require construction of two overhead/underground transition stations for the 500 kV line, and installation of an underground route segment for approximately 2.7 miles. The route would transition to an underground 500 kV line at MP I8-55 and parallel the north side of Interstate 8, just east of the Caltrans Buckman Springs Rest Area, then transition back to a 500 kV overhead line, rejoining the Interstate 8 Alternative route, at MP I8-57.3. The Buckman Springs Underground Option would be located near the Horse Canyon hang gliding and paragliding site.

This option to the Interstate 8 alternative was specifically developed to reduce impacts to pilots using the Horse Canyon hang gliding and paragliding site. The Buckman Springs Underground Option would eliminate recreation impacts to hang gliding and paragliding and is not near any other recreation areas. Also, this option is not near any wilderness areas. As such, the Buckman Springs Underground Option would not impact recreation or wilderness areas in Buckman Springs Valley

West Buckman Springs Option

Environmental Setting

The West Buckman Springs Option would relocate the transmission line to west of Buckman Springs Valley, rather than east where the Interstate 8 Alternative route is currently proposed. At MP I8-54, the route would cross to the south side of Interstate 8, head west and cross the PCT. This option would roughly parallel the PCT in an east-west direction for approximately 0.4 miles before turning north to follow the west side of Buckman Springs Road for approximately 4 miles. This option would pass just west of the Boulder Oaks Campground near MP BSW-2 and within two miles northeast of Lake Morena County Park, which includes Lake Morena. There are no wilderness areas that would be affected by this alternative option.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas (Class II)

Construction of the West Buckman Springs Alternative may require closure of portions of the Boulder Oaks Campground and the PCT, thereby reducing access to these recreational resources. Additionally, the noise and presence of heavy equipment associated with project construction may temporarily reduce visitation to recreation areas. Recreationists may cancel or schedule their visits to avoid construction periods thereby resulting in temporarily reduced visitation, especially to Boulder Oaks Campground and segments of the PCT, where construction could pose a safety hazard to trail users. Such a disturbance to recreational resources would result in significant impacts without mitigation.

Construction-related impacts to these recreational resources would be mitigated to a less than significant level (Class II) through implementation of Mitigation Measures WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area), WR-1b (Provide temporary detours for trail users), and WR-1c (Coordinate with local agencies to identify alternative recreation sites).

Mitigation Measures for Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas

- WR-1a** **Coordinate construction schedule and activities with the authorized officer for the recreation area.**
- WR-1b** **Provide temporary detours for trail users.**
- WR-1c** **Coordinate with local agencies to identify alternative recreation areas.**

Operational Impacts

Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value (Class I)

Views of the West Buckman Springs Option would be available from the Buckman Springs Rest Area, PCT, and Boulder Oaks Campground. As described in Section E.1.3, Visual Resources, the increase in structural complexity and industrial character resulting from presence of the 500 kV transmission line would contrast with the surrounding predominantly natural landscape. Additionally, the corona noise from the proposed 500 kV segment would substantially elevate the ambient noise levels within 500 feet of the edge of the 500 kV ROW in the natural areas east of Interstate 8 (i.e., Boulder Oaks Campground and the PCT corridor). Refer to Section E.1.8 for additional information on noise impacts.

Visual resource and noise impacts would directly adversely affect the character of recreation areas in the Buckman Springs Valley and result in a significant and unmitigable impact (Class I). Visual Resources Mitigation Measures V-3a (Reduce visual contrast of towers and conductors), V-45a (Prepare and Implement Scenery Conservation Plan) and Noise Mitigation Measure N-3a (Respond to complaints of corona noise) would reduce impacts to the recreational value of the PCT and Boulder Oaks Campground within Cleveland National Forest and the Buckman Springs Rest Area, but the impact would remain significant for these recreation areas. The full text of the visual and noise mitigation measures presented below is provided in Appendix 12, along with the full text of all other mitigation measures. Mitigation Measure V-45a is specific to Forest Service land.

Mitigation Measures for Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value

- V-3a Reduce visual contrast of towers and conductors.**
- V-45a Prepare and implement Scenery Conservation Plan.**
- N-3a Respond to complaints of corona noise.**

Impact WR-3: Presence of a transmission line would permanently preclude recreational activities (Class II)

As described above, the West Buckman Springs Option would cross the PCT at approximately MP BSW-1.7. If transmission support structures were sited on the trail, recreationists would be precluded from these locations. Exact locations of transmission support structures have not been determined. Although preliminary locations have been proposed, these may be modified based on site-specific environmental conditions (i.e., slope stability, presence of sensitive biological or cultural resources). This impact analysis, therefore, conservatively assumes that structures would be sited on trails. Impacts to existing recreational resources that resulted from locating new towers on or immediately adjacent to the trail would be significant (Class II). Preclusion of the use of the PCT would be mitigated to a less than significant level through implementation of Mitigation Measure WR-3a (Coordinate tower and road locations with the authorized officer for the recreation area).

Mitigation Measure for Impact WR-3: Presence of a transmission line would permanently preclude recreational activities

- WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.**

Impact WR-4: Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land (No Impact)

The West Buckman Springs Option ROW would not traverse any wilderness areas or WSAs. As such, direct impacts to these resources would not occur.

Buckman South Option

The Buckman South Option to the Interstate 8 Alternative would avoid passing through backcountry non-motorized land use zones north and east of Interstate 8 within CNF. The option would deviate from the Interstate 8 Alternative route at MP I8-47.2 and follow the existing SDG&E 69 kV corridor east, then north to connect to the West Buckman Springs Option (described below) at MP BSW-0.7. This alternative option would neither traverse any recreation or wilderness areas nor would it be constructed along any access routes to recreation areas. The nearest recreational resources are the Boulder Oaks Campground and PCT, which are at the northern terminus of the route option and are analyzed under the West Buckman Springs Option, below. Construction- or operation-related impacts from the Buckman South Option to recreation or wilderness areas would not occur.

Chocolate Canyon Option

Environmental Setting

Under the Chocolate Canyon Option, the underground portion of the route would continue on from the point of the Interstate 8 alternative transition structures on Alpine Road, passing beneath I-8 to the north side of I-8 where the line would surface via two transition structures. From here, the aboveground route

would head northeast up Chocolate Canyon, roughly parallel to El Monte Road. The route would follow the canyon to El Capitan Reservoir where it would turn to the west, just south of the southern shore of the reservoir, eventually intersecting the I-8 Alternative just west of the dam and immediately south of the Trans-County Trail.

Environmental Impacts and Mitigation Measures

In comparison to the equivalent segment of the Interstate 8 Alternative, the Chocolate Canyon Option would be closer to the El Capitan Reservoir, resulting in temporary impacts to access and visitation to the day-use reservoir (Impact WR-1) as well as permanent impacts to the value of the recreation area (Impact WR-2), as discussed below. The Chocolate Canyon Option would not permanently preclude use of any recreation area (Impact WR-3) and there are no wilderness areas or WSAs in the vicinity of this option (Impact WR-4).

Construction Impacts

Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas (Class II)

Construction of the Chocolate Canyon Option may require closure of portions of the El Capitan Reservoir and would be constructed roughly parallel to El Monte Road, which is the main access route to the reservoir, thereby reducing access to this recreation area. Additionally, the noise and presence of heavy equipment associated with project construction may temporarily reduce visitation to the reservoir. Construction activities immediately adjacent to the southern shore of the reservoir may pose a safety hazard to day users of the recreation area. For these reasons, recreationists may cancel or schedule their visits to avoid construction periods thereby resulting in temporarily reduced visitation. Such a disturbance to recreational resources would result in significant impacts without mitigation.

Construction-related impacts to El Capitan Reservoir would be mitigated to a less than significant level (Class II) through implementation of Mitigation Measures WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area), WR-1b (Provide temporary detours for trail users), and WR-1c (Coordinate with local agencies to identify alternative recreation sites).

Mitigation Measures for Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas

- WR-1a** **Coordinate construction schedule and activities with the authorized officer for the recreation area.**
- WR-1b** **Provide temporary detours for trail users.**
- WR-1c** **Coordinate with local agencies to identify alternative recreation areas.**

Operational Impacts

Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value (Class I)

Views of the Chocolate Canyon Option would be available to recreationists from the El Capitan Reservoir. As described in Section E.1.3, Visual Resources, the increase in structural complexity and industrial character resulting from presence of the 500 kV transmission line would contrast with the surrounding landscape, which is predominantly natural. Visual resource impacts would diminish the

recreational value of the El Capitan Reservoir and result in a significant and unmitigable impact (Class I). Visual Resources Mitigation Measures V-3a (Reduce visual contrast of towers and conductors), would reduce this impact, but the impact would remain significant. The full text of the visual mitigation measure presented below is provided in Appendix 12, along with the full text of all other mitigation measures.

Mitigation Measures for Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value

V-3a Reduce visual contrast of towers and conductors.

E.1.5.5 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 and 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 future transmission route 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.1.5.1 and E.1.5.2 for a description of the Environmental Setting and Mitigation Measures for Wilderness and Recreation 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.5.2, D.5.8, and D.5.9 for a description of the Environmental Setting and Mitigation Measures for the Inland Valley Line 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.5.11 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 and 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 Wilderness and Recreation of the Route D Alternative can be found in Section E.3.5.1 and in Section E.3.5.2. It should be noted, however, that the Route D Alternative Visual impacts and mitigation measures are for a 500 kV transmis-

sion 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 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). See Section D.5.2 for more information on the wilderness and recreation setting of the Central, Inland Valley, and Coastal Links respectively of the Proposed Project.

For the wilderness and recreation 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.5.11.

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. See Section E.4.5 for the environmental setting and impacts along the Modified Route D. At this point, 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 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 future transmission route would begin at MP MD-26 within Cleveland National Forest (CNF) land. It would head west within the CNF for approximately 1.5 miles. At MP MD-26, the future transmission route would be approximately two miles east of the Hauser Wilderness Area and 1.5 miles east of the Pine Creek Wilderness Area.

Once outside the CNF, the route would traverse primarily open space, rural residences, and some unincorporated communities. It would follow the Loveland Reservoir for 800 feet; however, the western site of the reservoir is not used for recreational purposes.

Environmental Impacts – 230 or 500 kV Future Transmission System Expansion

Construction Impacts

Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas (Class II)

Project construction activities would create a number of temporary impacts that would diminish the value of the CNF and other recreational areas within the vicinity. For example, the noise, dust and traffic generated during construction activities would negatively affect a visitor's enjoyment of these recreation

areas. Recreationists may be less likely to visit these resources during project construction. In addition, some open space preserves and parks may temporarily close some of their recreational facilities in order to ensure the safety of recreationists during construction. Temporary closure would cause a temporary reduction of access and visitation and thus would result in potentially significant impacts.

The temporary reduction in access and visitation to recreational and wilderness areas is mitigable to less than significant levels (Class II) through implementation of Mitigation Measures WR-1a (Coordinate construction schedule and activities with the authorized officer for the recreation area), WR-1b (Provide temporary detours for trail users), and WR-1c (Coordinate with local agencies to identify alternative recreation areas) could apply. The full text of the mitigation measures appears in Appendix 12.

Mitigation Measures for Impact WR-1: Construction activities would temporarily reduce access and visitation to recreation or wilderness areas

- WR-1a** **Coordinate construction schedule and activities with the authorized officer for the recreation area.**
- WR-1b** **Provide temporary detours for trail users.**
- WR-1c** **Coordinate with local agencies to identify alternative recreation areas.**

Operational Impacts

Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value (Class I)

The 230 or 500 kV steel towers required for the Interstate 8 future transmission route would be highly visible to visitors to the Hauser Wilderness and Hauser Mountain WSA. The Hauser Wilderness and the surrounding area is one of the most remote locations in CNF (USDA, 2005). These recreational resources are valued for their solitude and expansive scenic setting. Presence of 230 or 500 kV transmission line(s) would be contrary to the expectations of many recreationists in these areas.

Due to the presence of the future transmission lines, the character of the affected BLM land and this southern portion of CNF would be permanently changed from an open space with minimal development to one that includes large industrial structures. The recreational experience in this area would be diminished by the presence of the large, steel structures required to support the future transmission line 230 or 500 kV transmission line(s).

Visual resource and noise impacts would directly adversely affect the character of recreation areas along the future transmission line route and result in a significant and unmitigable impact (Class I). Visual Resources Mitigation Measures V-3a (Reduce visual contrast of towers and conductors) and V-45a (Prepare and Implement Scenery Conservation Plan) and Noise Mitigation Measure N-3a (Respond to complaints of corona noise) are presented to reduce impacts to the recreational value of the Hauser Wilderness, and Hauser Mountain WSA, but the impact would remain significant for these recreation areas. Full descriptions of the visual and noise mitigation measures listed below are presented in Appendix 12. Mitigation Measure V-45a is specific to Forest Service land.

Mitigation Measures for Impact WR-2: Presence of a transmission line or substation would permanently change the character of a recreation area, diminishing its recreational value

- V-3a** **Reduce visual contrast of towers and conductors.**
- V-45a** **Prepare and implement Scenery Conservation Plan.**

N-3a Respond to complaints of corona noise.

Impact WR-3: Presence of a transmission line would permanently preclude recreational activities (Class II)

If future transmission system support structures were sited on or immediately adjacent to trails, recreationists would be precluded from these locations. However, exact locations of transmission support structures have not been determined. This impact analysis, therefore, conservatively assumes that structures would be sited on trails. Impacts to existing recreational resources that resulted from locating new towers on or immediately adjacent to the trail generally would be considered significant, but mitigable (Class II). Preclusion of the use of trails would be mitigated to a less than significant level through implementation of Mitigation Measure WR-3a (Coordinate tower and road locations with the authorized officer for the recreation area).

Mitigation Measure for Impact WR-3: Presence of a transmission line would permanently preclude recreational activities

WR-3a Coordinate tower and road locations with the authorized officer for the recreation area.

Impact WR-4: Presence of a transmission line in a designated wilderness or wilderness study area would result in loss of wilderness land (No Impact)

There are no wilderness areas or WSAs that would be affected by the expected Future Expansion alignments. As such, impacts to these resources would not occur.