

D.5 Cultural and Paleontological Resources

This section addresses potential impacts to cultural and paleontological resources resulting from construction and operation of the proposed power line replacement projects along with the operations and maintenance activities proposed for authorization under the MSUP. Section D.5.1 provides a description of the existing environmental setting/affected environment for cultural and paleontological resources in the project study area. Applicable regulations, plans, and standards are listed in Section D.5.2. An analysis of potential impacts/environmental effects of SDG&E's proposed project and discussion of mitigation measures to lessen/reduce project effects are provided in Section D.5.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.5.4, and Section D.5.5 discusses the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are discussed in Section D.5.6. Section D.5.7 discusses the No Action Alternative and Section D.5.8 describes the No Project Alternative. Section D.5.9 provides mitigation monitoring, compliance, and reporting information. Section D.5.10 addresses residual effects of the project, and Section D.5.11 lists the references cited in this section.

D.5.1 Environmental Setting/Affected Environment

Cultural resources are the tangible or intangible remains or traces left by prehistoric or historical peoples who inhabited the San Diego region. Cultural resources can also include traditional cultural places, such as gathering areas, landmarks, and ethnographic locations (County of San Diego 2007a).

Building and structural sites can vary from historic buildings to canals, historic roads and trails, bridges, ditches, dams, and cemeteries. These resources are generally called historical resources or "built" environment resources.

Examples of Native American traditional cultural resources or traditional cultural properties (TCPs) include sacred sites, as well as traditional resources of any community that are important for maintaining the cultural traditions of any group (National Register of Historic Places 1990; National Register Bulletin 38). Examples of Native American TCPs include places such as traditional landscapes, sacred mountains, and buildings; or areas where plants are collected for food, medicine, basket weaving, and ceremonial uses. Other examples of TCPs include buildings, parks, neighborhoods, or other places required to maintain contemporary cultural traditions.

Paleontological resources are the remains and/or traces of prehistoric life, exclusive of human remains, and including the localities where fossils were collected and the sedimentary rock formations from which they were obtained. They can include bones, teeth, soft tissue, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. The defining character of

fossils is their geologic age. Fossils or fossil deposits are generally regarded as older than 10,000 years, the generally accepted temporal boundary marking the end of the last Late Pleistocene glacial event and the beginning of the current period of climatic amelioration of the Holocene (County of San Diego 2007b).

In the San Diego region, paleontological resources occur in subsurface sedimentary rock layers, although they sometimes may be found in surface outcrops. These resources are limited and nonrenewable because the organisms from which they derive are extinct. Fossils are important scientific and educational resources because they are used to:

- Study the phylogenetic relationships between extinct organisms, as well as their relationships to modern groups
- Elucidate the taphonomic, behavioral, temporal, and diagenetic pathways responsible for fossil preservation, including biases in the fossil record
- Reconstruct ancient environments, climate change, and paleoecological relationships
- Provide a measure of relative geologic dating that forms the basis for biochronology and biostratigraphy, and that is an independent and supporting line of evidence for isotopic dating
- Study the geographic distribution of organisms and tectonic movements of land masses and ocean basins through time
- Study patterns and processes of evolution, extinction, and speciation.

Methodology and Assumptions

Information for SDG&E's proposed project was gathered from a review of the Forest Service Environmental Assessment for the San Diego Gas & Electric (SDG&E) Master Special Use Permit (Forest Service 2009); the SDG&E Master Special Use Permit Cleveland National Forest Orange and San Diego Counties, California Revised Plan Of Development (SDG&E 2013); and the Final Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland and National Forest Transmission and Distribution Line Increase Fire Safety Project in support of the Proponent's Environmental Assessment (ASM 2011; SDG&E 2012).

The Area of Potential Effect (APE) identified by SDG&E included approximately 90 feet on either side of the power lines and circuits proposed for replacement and approximately 30 feet on either side of exclusive use access road centerlines and the actual footprint of all stringing sites, staging areas, guard structures, and fly yards. The APE did not include all the areas identified in the Forest Service proposed action nor did it include areas identified in the alternatives.

Data collection included the following methods:

- An archaeological site record and archival search was conducted at the South Coastal Information Center, San Diego State University. The site record and archival search consisted of reviews of archaeological site records and associated cultural resources management reports (technical reports) prepared for projects that overlap portions of the project area.
- Project information in the California Historical Resources Information System Geographical Information System (GIS) inventory was examined for known and recorded sites.
- Various maps, including project maps, in addition to U.S. Geological Survey (USGS) quadrangle maps, and if applicable, prior reports were consulted and used to identify cultural resources that have been previously recorded in the vicinity of project area.
- Information gathered from archival research, including historic maps, was also used to assess the potential for encountering previously unrecorded resources within the project area.
- An intensive pedestrian field survey was conducted within the APE. Areas that were inaccessible because of dense brush or ground cover were subjected to limited, focused survey, whenever possible.
- Lands on the La Jolla Indian Reservation could not be surveyed, and the tribe did not grant permission to conduct a records search. All work was completed in accordance with the California Office of Historic Preservation guidelines for archaeological documentation, and in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended (16 U.S.C. 4321 and 4331–4335); the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470 et seq.); and the requirements set forth in Protection of Historic Properties (36 CFR 800), the implementing regulations of the NHPA.
- A request for a Sacred Lands File search was sent to the Native American Heritage Commission (NAHC) for their consideration and input.

All prehistoric and historic sites, both new and previously recorded (if relocated), were recorded. Sites were defined as any concentration of three or more artifacts in a 25-square-meter (m²) area and isolated artifacts were defined as fewer than three artifacts in a 25-m² area. Separate sites were recorded when artifact concentrations were separated by more than 50 m.

The isolated finds are, by definition, not sites and are not eligible for inclusion in the National Register of Historic Places (NRHP). Because isolates are not NRHP-eligible, they are not historic properties under Section 106 of the NHPA, and no further work is necessary. The isolated finds also are not eligible for inclusion in the California Register of Historical Resources (CRHR) as “historic resources,” because they do not address any of the listing criteria (A, B, C,

or D). Additionally, the isolated finds are not “unique” archaeological resources as defined by CEQA Section 21083.2(g), because they do not contain information needed to answer important scientific questions; there is no demonstrable public interest in that information; they have no special and particular quality, such as being the oldest of its type or the best available example of its type; and they are not directly associated with a scientifically recognized, important prehistoric or historic event or person.

D.5.1.1 General Overview

Cultural and historical resources within the project area represent nearly 9,000 years of human occupation and use. Cultural development within the national forests may have evolved along different lines reflecting adaptation by different cultural groups from different environments. By the time of European contact, several distinct groups were recorded as exploiting the mountainous environment. Use of the national forests by the European population first centered on travel, mission-related activities (including post-secularization communities and other early California settlements), homesteading, mining, and ranching, before culminating in a recreation focus of the activities within the national forests. The “Archaeological Overview for the Cleveland National Forest” prepared by Mooney and Associates in 2003 is available in the project files and provides a detailed overview of the cultural resources on the Cleveland National Forest (CNF) (Forest Service 2009).

The existing power lines, access roads, and other facilities proposed for authorization under the MSUP are known to be located on or across 25 cultural resources as documented by surveys conducted by ASM Affiliates. These resources include 19 prehistoric archaeological sites, 5 historical archaeological sites (including two with historic built features—one water retention basin and one road), and one archaeological site with both prehistoric and historic components. In addition, heritage sites important to native peoples have also been identified through consultation as being located within the APE. Impacts to the sites occurred through the construction of project facilities, including road construction, clearing for pole installation, and clearing for fire prevention. Impacts to known sites have occurred in the past. These past actions are part of the baseline for the analysis of SDG&E’s proposed project and alternatives (Forest Service 2009).

A portion of the utilities infrastructure proposed for permitting and replacement as part of the proposed project is over 50 years old and requires documentation and evaluation for its potential eligibility for listing on the National Register of Historic Places (NRHP). SDG&E has not completed this evaluation, and the status and eligibility of the existing infrastructure is unknown.

Archaeological Setting

The prehistory of San Diego County is generally divided into three temporal periods: Paleoindian, Archaic, and Late Prehistoric. The following contextual information is summarized from ASM's *Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland National Forest Transmission and Distribution Line Increased Fire Safety Project* (ASM 2011) that was prepared for SDG&E's proposed project.

Paleoindian Period

The Paleoindian period in San Diego County is believed to have occurred during the Pleistocene through the early Holocene, beginning approximately 10,000 B.P. and ending sometime between 8,500 and 7,500 B.P.

Archaeologists have used a variety of terms over the years for Paleoindian assemblages in the Southern California region, including the terms Scaper-Maker, Malpais, and Playa to label lithic industries of the region (terms introduced then discarded by Malcolm Rogers), and San Dieguito to refer to the earliest artifact assemblages in San Diego County (another term introduced by Rogers). Key attributes of the San Dieguito sites included distinct scrapers and scraper planes, bifacial knives, rare crescentics, and occasional hand stones and milling stones that were determined to be used mainly for hunting.

The discovery of the C.W. Harris site with flaked lithic tools such as scrapers, scraper planes, large bifaces, and projectile points, along the San Dieguito River provided the first stratigraphic evidence of the San Dieguito. Trenching excavations at the C.W. Harris site revealed San Dieguito and Late Prehistoric occupation. Rogers considered the C.W. Harris site as a late Paleoindian campsite.

Archaic Period

In the San Diego region, the Archaic period extends from approximately 7,500 BP to sometime between 1,300 and 800 BP. Archaic assemblages along the coast consist of archaeological resources including groundstone items, flaked cobble tools and cores, and marine shell. A major distinction has been made between shell midden Archaic sites near the coast and nonshell midden Archaic sites further inland. Coastal Archaic sites (known as La Jolla complex) have been characterized by shell middens, flaked cobble tools, basin milling stones, hand stones, and flexed burials, while inland areas in northern San Diego County (known as Pauma complex) lack the shell middens and burials. The Archaic period focused on gathering activities that emphasized plant resources, marine mollusks, and catching fish.

Major changes in human adaptations were considered to have occurred between 4,000 and 3,000 BP, with the decline in associated shellfish populations, resulting in a depopulation of the coastal zone. Populations shifted inland to a river valley orientation and focused on terrestrial small game and plant resources (e.g., acorns).

Pauma complex sites were set on hills overlooking drainages, and associated with Holocene sediments. These sites were considered distinct from coastal Archaic sites, given their surficial nature, lack of shellfish, and perceived differences in the lithic assemblage. Given the predominance of grinding stones in the tool assemblages, the economy at these sites was thought to be oriented toward seed-gathering.

Late Prehistoric Period

The period of time following the Archaic and prior to Ethnohistoric times (AD 1750) is commonly referred to as the Late Prehistoric period. However, several other subdivisions continue to be used to describe various shifts in assemblage composition, including the addition of ceramics and cremation practices. In northern San Diego County, the post-AD 1450 period is called the San Luis Rey Complex (True 1966), while the same period in southern San Diego County is called the Cuyamaca Complex and is thought to extend from AD 500 until Ethnohistoric times (Meighan 1959). The San Luis Rey Complex has been attributed to the ethnohistoric Luiseno Native Americans, and the Cuyamaca Complex has been attributed to the ethnohistoric Kumeyaay Native Americans. Rogers (1929) also subdivided the last 1,000 years into the Yuman II and III cultures, based on the distribution of ceramics. Despite these regional complexes, each is defined by the addition of arrow points and ceramics, and the widespread use of bedrock mortars. Variations in the appearance of the bow and arrow and ceramics make the temporal resolution of the San Luis Rey and Cuyamaca complexes difficult. For this reason, the term Late Prehistoric is well-suited to describe the last 1,500 years of prehistory in the San Diego region.

Temporal trends in socioeconomic adaptations during the Late Prehistoric period are poorly understood. This is partly due to the fact that the fundamental Late Prehistoric assemblage is very similar to the Archaic pattern, but includes arrow points and large quantities of fine debitage from producing arrow points, ceramics, and cremations. The appearance of mortars and pestles is difficult to place in time because most mortars are on bedrock surfaces; bowl mortars are actually rare in the San Diego region. Some argue that the Ethnohistoric intensive acorn economy extends as far back as AD 500 (Bean and Shipek 1978). However, there is no substantial evidence that reliance on acorns, and the accompanying use of mortars and pestles, occurred prior to AD 1400. True (1980) argued that acorn processing and ceramic use in the northern San Diego region did not occur until the San Luis Rey pattern emerged after approximately AD 1450. For southern San Diego County, the picture is less clear. The

Cuyamaca Complex is the southern counterpart to the San Luis Rey pattern, however, and is most recognizable after AD 1450 (Hector 1984). Similar to True (1980), Hale (2009) argued that an acorn economy did not appear in the southern San Diego region until just prior to Ethnohistoric times, and that when it did occur, a major shift in social organization followed.

Regardless of the problems differentiating archaeology within traditional ethnohistoric Native American groups, the fully developed Late Prehistoric period across San Diego and Imperial Counties (1,000–300 BP) is characterized by sites with small pressure-flaked projectile points, cremation burials, ceramics, and plant food collection, processing, and storage, especially of acorns and other nuts. Inland semi-sedentary villages were established along major waterways, and montane areas were seasonally occupied to gather acorns and pinyon nuts, resulting in permanent milling stations on bedrock outcrops.

Ethnohistoric Setting

The APE for all alternatives spans territory occupied by Takic-speaking Native American groups of the larger Uto-Aztecan language family in northern San Diego County, including the Luiseno, and Yuman-speaking Diegueño or Kumeyaay (Ipai-Tipai) territory to the south, including the Kumeyaay, the Kamia, and groups living in northern Baja California. The Luiseno occupied the Peninsular Ranges to the Coast, generally north of the San Elijo watershed. The Kumeyaay also occupied the coast through the Peninsular Ranges but south of the San Elijo watershed, and the Kamia occupied Imperial Valley and on the Colorado River.

Archaeological deposits associated with Luiseno and Kumeyaay are very similar with differences primarily being recognized in relative proportions of certain artifact classes and their chronology (i.e., the timing and intensity of ceramic use and the bow and arrow) (Hale 2009). Despite the similarity in archaeological deposits, Luiseno and Kumeyaay social organization, as reported during early ethnographic studies was noticeably different: the Luiseno are reported to have had more structured settlement and were more aggressive than their southerly Kumeyaay neighbors (Bean and Shipek 1978; Shipek 1985; Luomala 1978). To be sure, separate prehistoric archaeological traditions have been assigned to each ethnohistoric group: the San Luis Rey complex has been attributed to the Luiseno and the Cuyamaca complex has been attributed to the Kumeyaay (see previous discussion of the Late Prehistoric Period).

Similar to archaeological deposits, ethnohistoric accounts of subsistence for the Luiseno and Kumeyaay are nearly identical, probably due to the overlap of resources between the territories of both groups. Overall, animal resources consisted mostly of small game such as rabbits (*Sylvilagus* spp.), hares (*Lepus californicus*), woodrats (*Neotoma* spp.), lizards, snakes, and grasshoppers and larger game, mostly mule deer (*Odocoileus hemionus*) and possibly pronghorn (*Antilocapra americana*, now locally extinct).

Luiseno and Kumeyaay culture and society began to change dramatically with the introduction of missionization and displacement by Hispanic populations during the late eighteenth and early nineteenth centuries. The effects of missionization, along with the introduction of Old World diseases, greatly reduced the native population of Southern California and by the early 1820s, California was under Mexican rule. The establishment of ranchos under the Mexican land grant program further disrupted the way of life of the native inhabitants.

During the 1830s, Indians were given half the mission lands and were made to be Mexican farmers and colonists, working on community projects. The majority of Indians quickly lost their mission lands as secular administrators functioned like feudal lords and ignored their responsibilities to the Indians. As a result, Native Americans became serfs, trespassers on ancestral lands, rebels, or mountain fugitives.

Initially, the U.S. Senate rejected treaties negotiated in 1851–1852 with California Indian groups. Later, legal reservations began to set aside portions of San Diego County for native groups. The newly established reservations were inadequate to sustain the economy. By the 1880s, Native Americans were living in dire conditions, and by the 1890s, many returned to the reservations for fiestas and family events.

Native American Resources

ASM researched traditional cultural locations in the APE using available published information and archival materials. Traditional cultural locations are named landmarks that collectively constitute maps of indigenous groups' territories and use areas. None of the traditional cultural locations discussed below have been evaluated as TCPs.

Many villages occupied by the Kumeyaay (Ipai-Tipai-Diegueño-Kamia) were only temporary campsites used for access to water, drainage, boulder outcrops, natural protection from weather and ambush, as well as abundant flora and fauna of that ecological niche.

Specific Kumeyaay traditional cultural locations or places include the following 27 locations (ASM 2011):

- Along the San Dieguito River: Kuiaumai, Hapai, Sinyau-pichkara, Ahmukatlkatl, Pauha, Tukumak (near Mesa Grande), Setmunumin, and Atikwanon
- Between the San Dieguito and San Diego Rivers: Pauwai and Pamo
- Along the San Diego River: Kosoi, Nipawai, Sinyeweche, Witlimak, Anyaha, Kosmit, and Sinyau-tehwir
- Between the San Diego and Sweetwater Rivers: Amotaretuwe
- San Diego Bay and Sweetwater River: Totakamalare, Pauipa, Hamacha (Jamacha), Sekwan (Sycuan), Ekwianiak, and Tlokwhih

- Along the Otay River: Hamul (Jamul)
- Between the Otay River and Cottonwood Creek: Otai (Otay Mountain)
- Along Cottonwood Creek: Kwatai (Guatay). See also Carrico (1983) for an excerpt of an interview with Tom Lucas, Kwaaymii, of Laguna Ranch regarding this village.

The Kumeyaay band territory included trails that were used by all members, general hunting territories, religious and ceremonial areas, band gathering areas, and locations with family or individual tenures. Each band also had specific and individual sacred sites and had a cemetery or cremation area that was used for sacred disposal of the dead. All bands had some central brush- or pole-enclosed structure used as an altar or worship area that only the shamans and leaders might enter.

Sacred places within greater Kumeyaay territory include the following (ASM 2011):

- Corte Madera Mountain (*Hilsh Ki'e* or “Pine Tree”): The Battle of the Peaks
- West side of the south peak of the Cuyamacas (*Hutstah' Tah-mil'tah*): Hanging Head
- The cold spring on the high peak of the Cuyamacas (*Ahaawiihaaa*): Water Colder Water
- A huge white boulder with spots of red on west side of Cuyamaca Peak (*Aakwerap*): Disease Cure
- Another large boulder on west side of Cuyamaca Peak (*Huulyaw Nimuuluukaa*): Phantom Basket
- Mount Guatay near Descanso (*Awaataay*): Big House
- A spring at the edge of the river flat at Descanso (*In-yar'en Ah-ha'*): No Eyes in Water
- The Laguna Mountains (*Siinyahaw Haawak*): Old Woman's Twins
- The Laguna Mountains (*Siinyahaw Hampuu*): Old Woman's Whip
- The summit of Viejas Mountain (*Kwut'ah Lu'e-ah*): Kwut'ah Lu'e-ah-Song Dance
- Iron oxide deposit at the foot of the Coyote Mountains (*Aakwer*): Red Paint.

In addition to the above-mentioned unevaluated traditional cultural locations, there are several archaeological districts that have also not been evaluated as TCPs. Table Mountain was nominated for listing in the NRHP by the Bureau of Land Management (BLM) as an archaeological district in 1982 because of its use by tribes such as the Kumeyaay. Archaeological evidence within this area include trade, rites, and rituals.

The Jacumba area was proposed as a discontinuous NRHP archaeological district by Wirth Associates Inc. in 1981 and encompasses the town of Jacumba and its surrounding valley and

hills. The district was recommended as eligible for listing because of its use by the Kumeyaay as a prehistoric gathering and trade area. Archaeological evidence of prehistoric practices includes trade and settlement sites.

In summary, although 95 traditional cultural locations and two archaeological districts have been documented in greater Kumeyaay territory, none have been evaluated as TCPs and, moreover, none are located within the project APE. While there is a potential for Luiseno TCPs in the project area, the potential for TCPs in the existing TL 682 alignment and proposed power line project is considered to be low.

D.5.1.2 Record Search and Survey Results

Based on a literature review, approximately 228 cultural resources are located either partially or completely within the APE of SDG&E's proposed project. Approximately 51 of these resources have existing wood poles located within their survey boundaries. Two historic resources, Old Highway 80 and Lilac Village, pass through the project study area. Old Highway 80 is a historic resource that is bordered by portions of TL629 from approximately Pine Valley in the west to the Campo Indian Reservation in the east. Old Highway 80 was recorded and assessed as eligible for the NRHP in 2000. Approximately 39 existing TL629 wood poles are located along Old Highway 80, but are outside the historic resource itself. Lilac Village is also a historic resource that is located along Sunrise Highway, north of Mount Laguna Drive and south of Los Huecos Road. Lilac Village was recorded and assessed as eligible for the NRHP in 1980. Approximately 11 wood poles are located in the historic resource itself.

Based on a literature review, there are approximately 122 cultural resources located either partially or completely within the CNF APE. Approximately 15 of these sites have existing wood poles located within their survey boundaries. The Old Highway 80 and Lilac Village historic resources pass through the CNF. Approximately 7 existing TL629 wood poles within the CNF are located along Old Highway 80, but are outside the historic resource itself, and approximately 10 existing C449 wood poles within the CNF are located within the Lilac Village historic resource.

The following previously recorded cultural resources for the five transmission lines and six distribution lines are described below. Only lands on the La Jolla Indian Reservation could not be surveyed, nor was permission granted by the tribe to conduct a records search.

TL682

As listed in Table D.5-1, there are 24 previously recorded cultural resources within the TL682 APE.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-1
Previously Recorded Cultural Resources within the TL682 APE**

Site Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-25	Boucher Hill	prehistoric bedrock milling	not evaluated	No
SDI-503	Boucher Hill	prehistoric bedrock milling	not evaluated	No
SDI-615	Boucher Hill	prehistoric bedrock milling; prehistoric pictographs	not evaluated	Yes
SDI-770	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-789	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-791	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-9580 (BW-103)	Mesa Grande	historic water basins	not evaluated	Yes
SDI-9694	Warners Ranch	prehistoric artifact scatter	not evaluated	Yes
SDI-10449	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-10663	Palomar Observatory	prehistoric bedrock milling	not evaluated	No
SDI-17883	Mesa Grande	prehistoric bedrock milling	not evaluated	Yes
SDI-19737 (BW-96)	Mesa Grande	historic trash scatter; historic road	not evaluated	Yes
SDI-19739 (BW-98)	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-19740 (BW-99)	Warner Springs	historic bottle scatter	not evaluated	No
SDI-19741 (BW-100)	Warner Springs	historic bottle scatter	not evaluated	Yes
SDI-19738 (BW-101)	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-19742 (BW-102)	Palomar Observatory	prehistoric bedrock milling	not evaluated	Yes
SDI-19743 (BW-104)	Boucher Hill	prehistoric bedrock milling	not evaluated	Yes
SDI-19744 (BW-105)	Boucher Hill	historic trash scatter	not evaluated	Yes
SDI-19745 (BW-106)	Boucher Hill	prehistoric bedrock milling	not evaluated	Yes
SDI-19746 (BW-107)	Boucher Hill	prehistoric lithic scatter	not evaluated	Yes
SDI-19747 (BW-108)	Boucher Hill	prehistoric bedrock milling; prehistoric pictographs	not evaluated	Yes
SDI-19748 (BW-109)	Boucher Hill	prehistoric bedrock milling	not evaluated	Yes
SDI-19749 (BW-97)	Mesa Grande	prehistoric bedrock milling	not evaluated	Yes

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as “historic resources,” and are not “unique” archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within TL682.

TL626

As listed in Table D.5-2, there are 22 previously recorded cultural resources within the TL626 APE.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-2
Previously Recorded Cultural Resources within the TL626 APE**

Site Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-4592	Tule Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-5556	Tule Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-5557	Tule Springs	prehistoric artifact scatter	not evaluated	Yes
SDI-5724	Tule Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-7102	Tule Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-12950	Tule Springs	prehistoric habitation	not evaluated	Yes
SDI-12951	Tule Springs	prehistoric bedrock milling	not evaluated	No
SDI-12957	Tule Springs	historical campground	not evaluated	Yes
SDI-15659	Tule Springs	prehistoric artifact scatter	not evaluated	Yes
SDI-16878	Santa Ysabel	prehistoric artifact scatter	not evaluated	Yes
SDI-16880	Santa Ysabel	prehistoric bedrock milling	not evaluated	Yes
SDI-17877	Santa Ysabel	prehistoric bedrock milling	not evaluated	Yes
SDI-17884	Santa Ysabel	prehistoric bedrock milling	not evaluated	No
SDI-17887	Tule Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-19025	Santa Ysabel	prehistoric bedrock milling	not evaluated	Yes
SDI-19031	Santa Ysabel	historical lumber mill	not evaluated	Yes
SDI-19169	Tule Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-19358 (ASM-626-1)	Santa Ysabel	prehistoric bedrock milling	not evaluated	N/A
SDI-19359 (ASM-626-3)	Santa Ysabel	prehistoric bedrock milling	not evaluated	N/A
SDI-19360 (BW-06)	Tule Springs	prehistoric bedrock milling	not evaluated	N/A
SDI-19371	Santa Ysabel	historical refuse scatter	not evaluated	N/A
SDI-19372 (BW-02)	Tule Springs	prehistoric bedrock milling	not evaluated	N/A

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as "historic resources," and are not "unique" archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within TL626.

TL625

As listed in Table D.5-3, there are 19 previously recorded cultural resources within the TL625 APE.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-3
Previously Recorded Cultural Resources within the TL625 APE**

Site Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
P-37-030457	Viejas Mountains	historical adobe wall	not evaluated	Yes
SDI-4276	Viejas Mountains	prehistoric habitation	not evaluated	Yes
SDI-4278	Viejas Mountains	prehistoric rock alignment and artifact scatter	not evaluated	No
SDI-4280	Viejas Mountains	prehistoric bedrock milling	not evaluated	No
SDI-5442	Viejas Mountains	prehistoric habitation and historical machinery	not evaluated	No
SDI-5920	Viejas Mountains	prehistoric artifact scatter	not evaluated	No
SDI-6650	Viejas Mountains	prehistoric habitation and historical foundation	not evaluated	Yes
SDI-7929/10950	Viejas Mountains	prehistoric bedrock milling	not evaluated	Yes
SDI-19026	Barrett Lake	prehistoric bedrock milling	not evaluated	Yes
SDI-19353	Descanso	historical wall	not evaluated	Yes
SDI-19354	Viejas Mountains	prehistoric bedrock milling	not evaluated	Yes
SDI-19355	Viejas Mountains	prehistoric bedrock milling	not evaluated	Yes
SDI-19356	Viejas Mountains	prehistoric bedrock milling	not evaluated	Yes
SDI-19362	Viejas Mountains	prehistoric habitation	not evaluated	Yes
SDI-19367	Viejas Mountains	prehistoric bedrock milling	not evaluated	Yes
SDI-12106/12107	Viejas Mountains	multiple component site	not evaluated	Yes
SDI-12108	Viejas Mountains	prehistoric artifact scatter	not evaluated	Yes
SDI-12109	Viejas Mountains	prehistoric artifact scatter	not evaluated	Yes
SDI-121110	Viejas Mountains	prehistoric rock alignment and artifact scatter	not evaluated	Yes

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as "historic resources," and are not "unique" archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within TL625.

TL629

As listed in Table D.5-4, there are 30 previously recorded cultural resources within the TL629 APE.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-4
Previously Recorded Cultural Resources within the TL629 APE**

Site Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-80	Cameron Corners	prehistoric habitation	not evaluated	Yes
SDI-4787	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-5500	Cameron Corners	historical cairn	not evaluated	Yes
SDI-8239	Mount Laguna	multiple component site	not evaluated	Yes
SDI-8301	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-8302	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-8855	Descanso	multiple component site	not evaluated	Yes
SDI-9193	Descanso	prehistoric artifact scatter	not evaluated	Yes
SDI-9392	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-11796/15120	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-18119	Descanso	historical refuse scatter	not evaluated	Yes
SDI-16503	Descanso	prehistoric artifact scatter	not evaluated	Yes
SDI-19022	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-19349 (ASM-2)	Mount Laguna	prehistoric lithic scatter	not evaluated	Yes
SDI-19350 (KM-14)	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-19351 (KM-15)	Descanso	prehistoric habitation	not evaluated	Yes
SDI-19352 (ASM-5)	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-19366 (ASM-6)	Descanso	prehistoric bedrock milling	not evaluated	Yes
P-37-024023	Cameron Corners	historical road	not evaluated	Yes
P-37-030455 (EP-3)	Descanso	historical foundations	not evaluated	Yes
P-37-030461 (KM-13)	Descanso	historical water tank	not evaluated	Yes
P-37-030472 (KM-21)	Mount Laguna	historical telegraph pole	not evaluated	Yes
P-37-030473 (KM-22)	Descanso	historical foundations	not evaluated	Yes
P-37-030474 (EP-8)	Mount Laguna	historical telegraph pole	not evaluated	Yes
P-37-030475 (BW-01)	Mount Laguna	historical foundations	not evaluated	Yes
SDI-8951	Live Oak Springs	prehistoric bedrock milling	not evaluated	Yes
SDI-17281	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-17282	Cameron Corners	multiple component site	not evaluated	Yes
SDI-21046 (JH-01)	Live Oak Springs	prehistoric artifact scatter	not evaluated	Yes
SDI-20147 (JH-02)	Live Oak Springs	prehistoric bedrock milling	not evaluated	Yes

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as "historic resources," and are not "unique" archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within TL629.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

TL6923

As listed in Table D.5-5, there are 25 previously recorded cultural resources within the TL6923 APE.

**Table D.5-5
Previously Recorded Cultural Resources within the TL6923 APE**

Site Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-4724	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-8439	Morena Reservoir	prehistoric lithic scatter	recommended eligible	Yes
SDI-8440	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-8443	Barrett Lake	historical rock wall	not evaluated	Yes
SDI-8444	Barrett Lake	prehistoric bedrock milling	not evaluated	Yes
SDI-8445	Barrett Lake	prehistoric bedrock milling	not evaluated	No
SDI-10040	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-11605	Barrett lake	historical flume	not evaluated	Yes
SDI-16773	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-17093/17096	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-17095	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-17989	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-17998	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-19039	Morena Reservoir	prehistoric artifact scatter	not evaluated	Yes
SDI-19040	Morena Reservoir	prehistoric ceramic scatter	not evaluated	Yes
SDI-19279	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-19280	Morena Reservoir	prehistoric lithic scatter	not evaluated	No
SDI-19795	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-19805	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-19810	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-19811	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-19813	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-20224 (SPAP-S-4)	Barrett Lake	prehistoric bedrock milling	not evaluated	Yes
SDI-20148 (BW-174)	Morena Reservoir	prehistoric bedrock milling	not evaluated	Yes
SDI-20223 (Potrero 2)	Barrett Lake	prehistoric bedrock milling	not evaluated	Yes

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as "historic resources," and are not "unique" archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within TL6923.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

C79

As listed in Table D.5-6, there are eight previously recorded cultural resources, including two with historical structures, five prehistoric archaeological sites, and one archaeological site with both prehistoric and historic components, within the C79 APE.

**Table D.5-6
Previously Recorded Cultural Resources within the C79 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
P-37-015813	Cuyamaca Peak	historical structure	not evaluated	Yes
SDI-9075	Cuyamaca Peak	prehistoric bedrock milling	not evaluated	Yes
SDI-9081	Cuyamaca Peak	prehistoric bedrock milling	not evaluated	No
SDI-9082	Cuyamaca Peak	prehistoric bedrock milling	not evaluated	Yes
SDI-9086	Cuyamaca Peak	historical structures	not evaluated	Yes
SDI-17032	Cuyamaca Peak	prehistoric bedrock milling and historical refuse scatter	not evaluated	Yes
SDI-17041	Cuyamaca Peak	prehistoric bedrock milling	not evaluated	Yes
SDI-20133 (TQ-S-1)	Cuyamaca Peak	prehistoric bedrock milling	not evaluated	N/A

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as “historic resources,” and are not “unique” archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within C79.

C78

As listed in Table D.5-7, there are 3 cultural resources within the APE.

**Table D.5-7
Previously Recorded Cultural Resources within the C78 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-9143	Viejas Mountain	viejas grade – historical stagecoach route	eligible for NRHP as part of historic district	Yes
SDI-20131 (BW-177)	Viejas Mountain	multiple component site	not evaluated	Yes
SDI-20132 (BW-178)	Viejas Mountain	prehistoric artifact scatter	not evaluated	Yes

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as “historic resources,” and are not “unique” archaeological resources as defined by CEQA Section 21083.2(g).

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within C78.

C157

As listed in Table D.5-8, there are two prehistoric cultural resources within the APE.

**Table D.5-8
Previously Recorded Cultural Resources within the C157 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-10615	Barrett Lake	prehistoric habitation	not evaluated	Yes
—	—	prehistoric bedrock milling ^a	not evaluated	No

Source: ASM 2011

Notes: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as “historic resources,” and are not “unique” archaeological resources as defined by CEQA Section 21083.2(g).

^a The prehistoric bedrock milling was identified during pole fielding activities at the eastern extent of the circuit in Skye Valley; however, the property owner restricted access to this property afterward, and a proper documentation of the site could not be conducted.

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within C157.

C442

As listed in Table D.5-9, there are 15 cultural resources within the APE, including 10 historic cabins and 5 prehistoric archaeological sites.

**Table D.5-9
Previously Recorded Cultural Resources within the C442 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
P-37-014417	Descanso	historical cabin	recommended eligible	Yes
P-37-014418	Descanso	historical cabin	recommended eligible	Yes
P-37-014419	Descanso	historical cabin	recommended eligible	Yes
P-37-014420	Descanso	historical cabin	recommended eligible	Yes
P-37-014422	Descanso	historical cabin	recommended eligible	Yes
P-37-014423	Descanso	historical cabin	recommended eligible	Yes
P-37-014424	Descanso	historical cabin	recommended eligible	Yes
P-37-014425	Descanso	historical cabin	recommended eligible	Yes
P-37-014426	Descanso	historical cabin	recommended eligible	Yes
P-37-014427	Descanso	historical cabin	recommended eligible	Yes
SDI-9207	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-9713/P-37-014421	Descanso	prehistoric bedrock milling; historical cabin	prehistoric site not evaluated; P-37-014421 recommended eligible	Yes

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-9
Previously Recorded Cultural Resources within the C442 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-12731	Descanso	prehistoric bedrock milling	not evaluated	Yes
SDI-20140 (ARG-01)	Descanso	prehistoric bedrock milling	not evaluated	N/A
SDI-20149 (C442-1)	Descanso	prehistoric bedrock milling	not evaluated	N/A

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as “historic resources,” and are not “unique” archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated the presence of sacred sites within 0.5 mile of the C442 APE.

C440

As listed in Table D.5-10, there are 94 cultural resources within the APE, including 54 historic cabins, 36 prehistoric archaeological sites, and 4 archaeological sites with both prehistoric and historic components.

**Table D.5-10
Previously Recorded Cultural Resources within the C440 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
P-37-014396	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014398	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014402	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014407	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014408	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014409	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014410	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014411	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014412	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014413	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014433	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014434	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014435	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014436	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014437	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014441	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014444	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014448	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014451	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014452	Mount Laguna	historical cabin	recommended eligible	NR*

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-10
Previously Recorded Cultural Resources within the C440 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
P-37-014453	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014454	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014455	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014456	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014457	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014458	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014459	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014460	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014461	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014462	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014463	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014464	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014465	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014467	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014468	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014470	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014472	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014473	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014474	Monument Peak	historical cabin	recommended eligible	NR*
P-37-014475	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014476	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014477	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014478	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014479	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014480	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014481	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014482	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014483	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014485	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014487	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014488	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014489	Mount Laguna	historical cabin	recommended eligible	NR*
P-37-014490	Mount Laguna	historical cabin	recommended eligible	Yes
P-37-014491	Mount Laguna	historical cabin	recommended eligible	Yes
SDI-116	Mount Laguna	prehistoric habitation	recommended eligible	NR*
SDI-777/-4804	Mount Laguna	prehistoric habitation	recommended eligible	NR*
SDI-5852	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-5865	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8479	Monument Peak	prehistoric bedrock milling	not evaluated	Yes
SDI-8483	Monument Peak	prehistoric bedrock milling	not evaluated	Yes

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-10
Previously Recorded Cultural Resources within the C440 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-8492/-15156	Monument Peak	prehistoric habitation	recommended eligible	NR*
SDI-8493	Monument Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8495	Monument Peak	prehistoric artifact scatter	not evaluated	Yes
SDI-8496	Monument Peak	prehistoric bedrock milling	not evaluated	NR*
SDI-8504	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8506	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8507	Mount Laguna	prehistoric bedrock milling	not evaluated	NR*
SDI-8512	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8528	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8529	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8533	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8534	Mount Laguna	prehistoric habitation	listed on NRHP	NR*
SDI-8543	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-8550	Monument Peak	prehistoric bedrock milling	not evaluated	NR*
SDI-9150	Mount Laguna	prehistoric habitation	recommended eligible	NR*
SDI-9395	Mount Laguna	multiple component	not evaluated	Yes
SDI-9396	Mount Laguna	multiple component	not evaluated	Yes
SDI-9399	Mount Laguna	multiple component	not evaluated	Yes
SDI-9402	Mount Laguna	prehistoric artifact scatter	not evaluated	No
SDI-10108a	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-10113	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-10114	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-10115	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-10291	Mount Laguna	prehistoric bedrock milling	not evaluated	Yes
SDI-11232	Mount Laguna	prehistoric bedrock milling	not evaluated	NR*
SDI-11233	Mount Laguna	prehistoric bedrock milling and rock feature	not evaluated	Yes
SDI-17878	Monument Peak	prehistoric artifact scatter	not evaluated	NR*
SDI-20134 (TQ-01)	Mount Laguna	prehistoric bedrock milling	not evaluated	N/A
SDI-20135 (TQ-02)	Mount Laguna	prehistoric bedrock milling	not evaluated	N/A
SDI-20136 (TQ-03)	Mount Laguna	prehistoric bedrock milling	not evaluated	N/A
SDI-20137 (TQ-04)	Mount Laguna	prehistoric bedrock milling	not evaluated	N/A
SDI-20138 (TQ-05)	Monument Peak	prehistoric bedrock milling and rock feature	not evaluated	N/A
SDI-20139 (TQ-06)	Monument Peak	multiple component	not evaluated	N/A
SDI-20158 (ARG-20)	Mount Laguna	prehistoric bedrock milling	not evaluated	N/A

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as "historic resources," and are not "unique" archaeological resources as defined by CEQA Section 21083.2(g).

* NR = Not Revisited

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

According to consultation with the Xakwa', Wiiapaayp, Wiikilyutciis, PiLyakay', Xakwiitceploy'iik, Xarpsii'tl, Wii'Kana'rLaxa, Kwatatl, and Xarpuuwii, nine Native American sites primarily made up of smaller group camps, or production-specific satellites to the larger permanent villages at Kwatatl and Wiiapaayp, are within the APE.

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within C440.

C449

As listed in Table D.5-11, there are 13 prehistoric cultural resources within the APE.

**Table D.5-11
Previously Recorded Cultural Resources within the C449 APE**

Site/Isolate Designation	USGS Quad	Description	NRHP/CRHR Status	Identified by ASM During Survey Effort
SDI-80	Cameron Corners	multiple component	recommended eligible	Yes
SDI-7885	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-7886	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-16227/16229	Cameron Corners	multiple component	not evaluated	Yes
SDI-16231	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-16232	Cameron Corners	prehistoric bedrock milling	not evaluated	Yes
SDI-20141 (ARG-5)	Cameron Corners	prehistoric bedrock milling	not evaluated	N/A
P-27-031709 (ARG-6)	Cameron Corners	historical refuse scatter	not evaluated	N/A
SDI-20142 (ARG-7)	Cameron Corners	prehistoric bedrock milling	not evaluated	N/A
SDI-20143 (ARG-8)	Cameron Corners	prehistoric bedrock milling	not evaluated	N/A
SDI-20144 (BW-179)	Cameron Corners	prehistoric bedrock milling	not evaluated	N/A
SDI-20145 (BW-180)	Cameron Corners	prehistoric bedrock milling	not evaluated	N/A
SDI-20150 (C449-1)	Cameron Corners	prehistoric bedrock milling	not evaluated	N/A

Source: ASM 2011

Note: Isolates are not included in table as they are not considered cultural resources. Isolates are not NRHP-eligible, are not historic properties under Section 106 of the NHPA, are not eligible for inclusion in the CRHR as "historic resources," and are not "unique" archaeological resources as defined by CEQA Section 21083.2(g).

In response to the Sacred Lands File search, the NAHC indicated the presence of sacred sites within 0.5 mile of the C449 APE.

D.5.1.3 Identified Paleontological Resources

A Paleontological Resource Report for the entire APE was prepared by the Department of PaleoServices at the San Diego Natural History Museum (SDNHM 2012). According to the technical report, no known fossils have been recorded within 0.5 mile of the APE.

The resource potential of the geologic formations in SDG&E's proposed project area has been evaluated in accordance with the Potential Fossil Yield Classification (PFYC) guidelines set forth by the BLM. The following levels of sensitivity are identified in the PFYC System that recognize the important relationship between fossils and the geologic formations within which they are preserved (BLM 2007):

- **Very High – Class 5.** Very high sensitivity is assigned to geologic units that consistently and predictably produce vertebrate fossils, or are scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area, such that the probability for impacting significant fossils is high.
- **High Sensitivity – Class 4.** High sensitivity is assigned to geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. It is assigned to geologic formations known to contain paleontological localities with rare, well-preserved, and/or critical fossil materials for stratigraphic or paleo-environmental interpretation and to fossils providing important information about the paleobiology and evolutionary history (phylogeny) of animal and plant groups. Generally speaking, high sensitivity formations are known to produce or have the potential to produce vertebrate fossil remains.
- **Moderate or Unknown Sensitivity – Class 3.** Moderate or unknown sensitivity is assigned to sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or where sedimentary units have unknown fossil potential. These geologic units include those within former marine environments in which only sporadic occurrences of vertebrate fossils are known; where vertebrate fossils and scientifically significant invertebrate or plant fossils known to occur intermittently, and predictability is known to be low; or where they are poorly studied and/or poorly documented, such that their potential cannot be assigned without ground reconnaissance.
- **Low Sensitivity – Class 2.** Low sensitivity is assigned to sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils, where vertebrate or significant invertebrate or plant fossils are not present or are very rare. These include units that are generally younger than 10,000 years BP, such as recent aeolian deposits. Low sensitivity also includes sediments that exhibit significant physical and chemical changes (i.e., diagenetic alteration).
- **Very Low Sensitivity – Class 1.** Very low sensitivity is assigned to geologic units that are not likely to contain recognizable fossil remains. These include units that are igneous or metamorphic, excluding reworked volcanic ash units, or units that are Precambrian in

age or older. The occurrence of significant fossils is non-existent or extremely rare, such that the probability for impacting any fossils in these units is negligible.

The majority of poles within SDG&E's proposed project right-of-way (ROW) (approximately 1,742 poles) are located on PFYC Class 1 geologic units, very low potential, with approximately 228 poles located in areas of PFYC Class 2 units, low potential, and approximately 132 located in areas classified as PFYC Class 3, moderate or unknown potential. There are no PFYC Class 4 or 5 geologic units located within the study area ROW.

D.5.2 Applicable Regulations, Plans, and Standards

Federal, state, and local laws, ordinances, regulations, and standards applicable to cultural and paleontological resources within SDG&E's proposed project area are summarized in this section.

D.5.2.1 Federal Regulations

Federal Regulations Applicable to Cultural Resources

National Historic Preservation Act

Federal regulations for cultural resources are primarily governed by Section 106 of the NHPA of 1966 (16 U.S.C. 470 et seq.). Section 106 describes the procedures for identifying and evaluating eligible properties, for assessing the effects of federal actions on eligible properties, and for consulting to avoid, reduce, or minimize adverse effects. It requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO) a reasonable opportunity to comment on such undertakings. The council's implementing regulations, "Protection of Historic Properties," are found in 36 CFR 800. The goal of the Section 106 review process is to offer a measure of management consideration to sites determined eligible for listing on the NRHP based on the criteria found in 36 CFR 60, which state that eligible resources include:

...[D]istricts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that (a) are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction; or (d) that have yielded, or may be likely to yield, information important to history or prehistory.

Section 106 does not require the preservation of historic properties, but it ensures that the decisions of federal agencies concerning the treatment of these places result from meaningful considerations of cultural and historic values and of the options available to protect the properties. SDG&E's proposed project is an undertaking, as defined by 36 CFR 800.3, and is subject to Section 106 and consideration under other federal requirements.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and record searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

The NRHP was established to recognize resources associated with the country's history and heritage. Guidelines for nomination are based on significance in American history, architecture, archaeology, engineering, and culture. Resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

The National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties (Parker and King 1998) defines a TCP generally as one that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history and (b) are important in maintaining the continuing cultural identity of the community. The significance criteria used for TCPs are the same as the four criteria used for determining the significance of historic properties.

Examples of properties possessing such significance include the following:

- A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world
- A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents
- An urban neighborhood that is the traditional home of a particular cultural group and that reflects its beliefs and practices
- A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice
- A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

The NHPA addresses and identifies the responsibilities of SHPO in regard to the State Historic Preservation Program. One of the primary responsibilities of the SHPO is to "direct and conduct

a comprehensive statewide survey of historic properties and nominate eligible properties to the NRHP” (16 U.S.C. 470 et seq.).

National Environmental Policy Act of 1969

NEPA (42 U.S.C. 4321 et seq.) establishes national policies and goals for the protection, maintenance, and enhancement of the environment and provides a framework for implementing these goals within the federal agencies. Section 102 of NEPA requires federal agencies to address environmental effects in their planning and decision-making documents. Specifically, all agencies are required to prepare detailed statements or reports that analyze and assess the environmental impacts of and alternatives to major federal action which could potentially affect the environment. Coordination efforts between NEPA and NHPA (Section 106) are established in 36 CFR 800.8(c). This section also established the process through which a federal agency can use the NEPA process and documentation to comply with Section 106. These are being coordinated for this project. NEPA establishes the federal government’s responsibility to preserve and protect significant historic, cultural, and natural resources of the United States, including paleontological resources.

Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act (AHPA) (16 U.S.C. 469 et seq.) requires federal agencies to provide for the “preservation of historical and archaeological data which might otherwise be irreparably lost or destroyed as the result of ... any alteration of the terrain caused as a result of any federal construction project or federal licensed activity or program.” The AHPA expanded the federal Historic Sites Act of 1935 by focusing on significant resources, but it does not require significant resources to be of “national” significance. The AHPA establishes historical and archaeological preservation requirements that are applicable to any project expected to result in the loss or destruction of significant scientific, historical, and archaeological data. The requirements are designed to avoid unnecessary damage to significant archaeological resources by modification of project design or recovery of threatened resources.

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (ARPA) (16 U.S.C. 470aa et seq.) was primarily established to provide more effective law enforcement to protect public archaeological sites. The ARPA provided a detailed description of prohibited activities and civil and criminal penalties associated with looting, vandalizing, or inadvertently damaging an archaeological site on federal lands. Another focus of the ARPA is the regulation of legitimate archaeological investigation on public lands and the enforcement of penalties against those who loot, vandalize, or inadvertently damage archaeological resources in the course of archaeological investigation.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 et seq.) established the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations regarding the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony (items all collectively referred to as cultural items) with which they can show a relationship of lineal descent or cultural affiliation. One of the purposes of the plan is to require federal agencies to consult with applicable tribes regarding the disposition of Native American cultural items whenever cultural items are expected to be encountered on federal lands.

Executive Order 11593, Protection and Enhancement of the Cultural Environment

Executive Order 11593 (36 FR 8921) (1) orders the protection and enhancement of the cultural environment through requiring federal agencies to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; (2) initiates measures necessary to direct their policies, plans, and programs in such a way that federally owned sites, structures, and objects of historical, architectural, or archaeological significance are preserved, restored, and maintained for the inspiration and benefit of the people; and (3) in consultation with the ACHP (16 U.S.C. 4701), institute procedures to assure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance.

Executive Order 13007, Protection and Preservation of Native American Sacred Sites

Executive Order 13007 was established to better protect important Indian sites and protect and preserve Indian religious practices. Section 1 of the executive order states that:

- (a) In managing Federal lands, each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (42 U.S.C. 1996) establishes a national policy to protect the right of Native Americans and other indigenous groups to exercise their traditional religions. As with Executive Order 13007, federal agencies issuing permits for SDG&E's

proposed project would be required to comply with this act if Native Americans identified issues regarding their right to exercise traditional religious practices.

Federal Land Policy and Management Act of 1976

The Federal Land Policy and Management Act (FLPMA) directs the way in which public lands administered by the BLM are managed. The FLPMA also defines areas of critical environmental concern as “an area within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards” (43 U.S.C. 1701 et seq.). Lastly, the FLPMA establishes policy for a variety of BLM activities including acquisition or disposition of land, range management, ROW management, and designated management areas.

The FLPMA recognizes significant fossils as unique, rare, or particularly well-preserved; an unusual assemblage of common fossils; being of high scientific interest; or providing important new data concerning (1) evolutionary trends, (2) development of biological communities, (3) interaction between or among organisms, (4) unusual or spectacular circumstances in the history of life, or (5) anatomical structure (43 U.S.C. 1701 et seq.).

American Antiquities Act of 1906

The American Antiquities Act of 1906 (16 U.S.C. 431 et seq.) was the first U.S. law to provide for the protection of historical or cultural resources. Section 2 of the statute gives the president the authority to protect and conserve “historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States.” Section 3 of the act required that unearthed historical and cultural resources be placed in public museums for preservation and public benefit. The act also provides penalties for the damage or destruction of antiquities. The act includes both heritage resources and paleontological resources.

Historic Sites, Buildings, Objects and Antiquities Act of 1935, as amended

This act declared it national policy to preserve historic sites, buildings, and objects of national significance. It provides procedures for designation, acquisition, administration, and protection of such sites. Among other things, National Historic and Natural Landmarks are designated under authority of this Act.

Programmatic Agreement Among the BLM, Advisory Council on Historic Preservation, and the National Conference State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet its Responsibilities Under the National Historic Preservation Act

This document (BLM 1997) establishes the policies and procedures that the BLM follows in implementing NHPA Section 106 Guidelines, to help guide the BLM's planning and decision making as it affects historic properties and other cultural properties (BLM 1997). This includes policies regarding Native American consultation with Indian tribes and other Native American groups in lands and resources potentially affected by BLM decisions.

Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and The Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management Of Historic Properties by the National Forests of the Pacific Southwest Region (2013)

This Regional Programmatic Agreement (RPA) establishes the policies and procedures that the FS follows in implementing NHPA Section 106 Guidelines, to help guide the FS planning and decision making as it affects historic properties and other cultural properties. This includes policies regarding Native American consultation with Indian tribes and other Native American groups in lands and resources potentially affected by FS decisions. The RPA requires that the FS consult with the SHPO about the applicability of the RPA when one of more federal agencies are involved in an undertaking. The FS initiated this consultation by letter in July 2014, and proposed to the SHPO that a project specific PA be developed. A draft project PA, which includes a requirement for the development of a Historic Properties Treatment Plan (HPTP) was included in the consultation letter.

BLM Eastern San Diego County Resource Management Plan and Record of Decision

The goals and objectives of the plan are to:

- Identify, preserve, and protect significant cultural resources, districts, and landscapes and ensure that they are available for appropriate uses by present and future generations
- Identify priority geographic areas for new field inventory, based upon a probability for unrecorded significant resources
- Enhance public understanding of and appreciation for cultural resources through educational outreach and heritage tourism opportunities
- Maintain viewsheds of important cultural resources whose settings contribute significantly to their scientific, public, traditional, or conservation values

- Provide and encourage research opportunities on cultural resources that would contribute to the understanding of the ways humans have used and influenced natural systems and processes
- Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses
- Reduce or eliminate indirect impacts from land uses on cultural resources.

Southern California National Forest Land Management Plan

The Southern California National Forest Land Management Plan (LMP) describes the strategic direction at a broad program-level for managing the Angeles, Los Padres, San Bernardino, and Cleveland national forests (collectively referred to as the Southern California National Forests). The LMP consists of three interrelated parts (Parts 1, 2, and 3) that work together to “facilitate the use of adaptive management and the development of the management activities” in order to move the national forest towards their desired outcome (USDA 2005a). Part 1 of the LMP is a vision document that identifies existing management challenges, strategic goals, and desired conditions. Part 2 consists of the CNF LMP and discusses the resource management function and how the cultural heritage that resides on the land should be managed. Part 3 provides design criteria/forest plan standards and guidelines applicable to the Southern California National Forests including CNF. The key items relevant to cultural and paleontological resources contained within Parts 1 through 3 of the Southern California National Forests LMP are discussed below to emphasize their relevancy to SDG&E’s proposed project.

Part 1

- Goal 3.1. Provide for Public Use and Natural Resource Protection.

Goal 3.1 relates to reconciling the need to manage areas at risk where significant heritage resources are located, as well as areas of concern for tribes and Native American communities. The LMP indicates that an emphasis on natural resource protection improves resource conditions through increased regulation of recreation use. The goal is to promote conservation education as well as provide heritage site protection. In addition, the goal is to maintain the national forest in a condition so that tribes and other Native American groups and individuals can exercise and retain traditional connections to the land and to foster both traditional and contemporary cultural uses of the national forests (USDA 2005a).

In addition, Appendix A, Government Performance and Results Act Priority National Goals, discusses the goals identified in the Forest Service Strategic Plan and identifies applicable objectives that support the goals (USDA 2005a).

- Goal 6. Mission-related work in addition to that which supports the agency goals.
 - Objective 1: Provide current resource data, monitoring, and research information in a timely manner.
 - Objective 2: Meet Federal financial management standards and integrate budget and performance.
 - Objective 3: Maintain the environmental, social, and economic benefits of forests and grasslands by reducing their conversion to other uses.

Part 2 Cleveland National Forest Strategy (CNF LMP)

Appendix B, Program Strategies and Tactics, describes the detailed program strategies that the CNF may choose to make progress toward achieving the desired conditions and goals discussed in Part 1. The national forest will prioritize which strategies will be brought forward in any given year using the program emphasis objectives, national and regional direction, and available funding (USDA 2005b). The following lists relevant strategies and tactics for reaching Goal 3.1 identified in Part 1, Southern California National Forest Vision.

- Tribal 1 – Traditional and Contemporary Uses – allow traditional use, access to traditionally used areas, as well as contemporary use and needs by tribal and other Native American interests
- Tribal 2 – Government to Government Relations – establish effective relationships with federally recognized tribes
- Her 1 – Heritage Resource Protection – protect heritage resources for cultural and scientific value and public benefit
- Her 2 – Public Involvement Program – provide public involvement programs with opportunities for people to partner in the stewardship of heritage resource sites
- Her 3 – Forest-wide Heritage Inventory – increase knowledge of the occurrence, distribution, and diversity of site types for heritage resources on the national forest
- Her 4 – Heritage Research – document and strengthen the linkages between heritage research and ecosystem management and research, and integrate knowledge and appreciation of past cultures into today’s diversity.

Part 3 Design Standards for the Southern California National Forests

The following are the cultural and historic standards relevant to SDG&E's proposed project (USDA 2007c):

- S60: Until proper evaluation occurs, known heritage resource sites shall be afforded the same consideration and protection as those properties evaluated as eligible to the National Register of Historic Places.
- S61: Leave human remains which are not under the jurisdiction of the County Coroner undisturbed unless there is an urgent reason for their disinterment. In case of accidental disturbance of human remains, excavation of human remains, or subsequent re-internment of human remains, follow national forest, federal and tribal policies.
- S62: Protect the access to and the use of sensitive traditional tribal use areas.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act requires the secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal land using scientific principles and expertise. The Omnibus Public Lands Act–Paleontological Resources Preservation (OPLA–PRP) includes specific provisions addressing management of these resources by the BLM, the National Park Service, the Bureau of Reclamation, the U.S. Fish and Wildlife Service, all of the Department of the Interior, and the Forest Service of the Department of Agriculture.

The OPLA–PRP affirms the authority for many of the policies that the federal land-managing agencies already have in place for the management of paleontological resources such as issuing permits for collecting paleontological resources, curation of paleontological resources, and confidentiality of locality data. The OPLA–PRP only applies to federal lands and does not affect private lands. It provides authority for the protection of paleontological resources on federal lands, including criminal and civil penalties for fossil theft and vandalism. As directed by the act, the federal agencies are in the process of developing regulations, establishing public awareness and education programs, and inventorying and monitoring federal lands.

Geological Resources and Hazards

36 CFR 251, Subpart B, Special-Uses, provides direction for managing special-uses including paleontological resources.

36 CFR 219 Planning

Part 219.24 states that forest planning shall provide for the identification, protection, interpretation, and management of significant cultural resources on National Forest System lands.

D.5.2.2 State Laws and Regulations

California Environmental Quality Act

State historic preservation regulations affecting this project include the statutes and guidelines contained in CEQA (California Public Resources Code, Sections 21083.2 and 21084.1, and Section 15064.5 of the CEQA Guidelines). CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. A “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript, which is historically or archaeologically significant (California Public Resources Code, Section 5020.1 (j)).

Section 15064.5 of the CEQA Guidelines specifies criteria for determining the significance of impacts to archaeological and historical resources. Section 15064.5 defines a “historical resource” as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (14 CCR 4852) including the following:

- a. Is associated with events that have made a contribution to the broad patterns of California history
- b. Is associated with the lives of important persons from our past
- c. Embodies the distinctive characteristics of a type, period, region or method construction, or represents the work of an important individual or possesses high artistic values
- d. Has yielded, or may be likely to yield, important information in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1. If a cultural resource does not meet the definition of a “historic resource” under CEQA Guidelines Section 15164.5, it must be reviewed under CEQA Section 21083.2(g) that defines the significance of an archaeological site in terms of whether it is “unique.” A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

- The archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information.
- The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the previously listed criteria. Impacts to non-unique archaeological resources receive no further consideration under CEQA, other than the recording of its existence by the lead agency if it so elects.

CEQA Section 21083.2 indicates that a lead agency may make efforts to preserve unique archaeological resources by implementing avoidance strategies including redesign, dedication of permanent conservation easements, capping of archaeological sites, or incorporating archaeological sites in parks or other open spaces. If avoidance is not possible, project impacts to those portions of the unique archaeological resources shall be mitigated. Provisions for the accidental discovery of archaeological sites during construction are recommended, including its

immediate evaluation and, if considered to be unique, mitigation through implementing avoidance measures or archaeological data recovery excavations.

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations, and societies, be solicited as part of the process of cultural resources inventory.

CEQA Guidelines Section 15064.5(b) defines when a project would potentially have significant impacts on cultural resources. A "substantial adverse change in the significance of an historical resource" means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15000 et seq.). The significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

CEQA Guidelines, Section 15064.5(b)(4), states that the lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of a historical resource. Section 15064.5(b)(3) of the CEQA Guidelines also states that impacts on a historic resource may be reduced to a less-than-significant level if project design follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995).

CEQA Guidelines Section 15126.4(b) defines mitigation measures related to impacts on historical resources. In addition to following the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, the section states that documentation of a historical resource with a historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not necessarily mitigate the effects to less-than-significant levels. Avoidance of impacts on any historical resource of an archaeological nature is encouraged. Preservation in place is the preferred manner of mitigating impacts to archaeological sites, by methods including: (1) avoiding construction on archaeological sites; (2) incorporation of sites within parks, greenspace, or other open space; (3) covering the archaeological sites with a layer of chemically stable soil before building on the site; and/or (4) deeding the site into a permanent conservation easement. When site avoidance is not possible, data recovery through excavation should recover scientifically consequential information from and about the historical resource, prior to any excavation being undertaken. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation. Data recovery is not required for a historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource.

CEQA Guidelines, Section 15064.5(d), assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under California Public Resources Code Section 5097.98. Under CEQA, lead agencies are required to consider impacts to unique paleontological resources. CEQA is concerned with assessing impacts associated with the direct or indirect destruction of unique paleontological resources or sites, as defined in Section D.7.1.3, which are of value to the region or state.

California Public Resources Code

California Public Resources Code Section 5024.1 (a) establishes the CRHR. Section 5024.1(c-f) provides criteria for CRHR eligibility listing. In addition, the CRHR also automatically includes the following: California properties listed on the NRHP, State Historic Landmark No. 770 and all consecutively numbered state landmarks following No. 770 (landmarks preceding No. 770 shall be reviewed for eligibility by the SHPO), and points of historical interest that have been reviewed by the SHPO and recommended for inclusion in the CRHR in accordance with criteria adopted by the State Historic Resources Commission.

California Public Resources Code Section 5097-5097.6 outlines the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The

state agency proposing the project may conduct the cultural resource analysis or may contract with the State Department of Parks and Recreation. In addition, this section identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and it provides for criminal sanctions. This section was amended in 1987 to require consultation with the NAHC whenever Native American graves are found. Violations for taking or possessing remains or artifacts are felonies.

California Public Resources Code Section 5097.5 states that “no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historic feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.”

California Public Resources Code, Section 5097.9 (interference with Native American religion or damage to cemeteries or places of worship, etc.) states that no public agency or private party shall cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

California Public Resources Code, Section 5097.98, states that whenever the NAHC receives notification of Native American human remains from a county coroner, the NAHC shall immediately notify the most likely descendent. The most likely descendent may, with permission from the owner of the land in which the human remains were found, inspect the site and recommend to the owner or the responsible party conducting the excavation work a means for treating and/or disposing of the human remains and any associated grave goods. The most likely descendent is required to complete their site inspection and make their recommendation within 48 hours of their notification from the NAHC.

California Health and Safety Code

In addition, California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains.

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

Health and Safety Code 8010–8011

Sections 8010–8011 of the Health and Safety Code provides consistent state policy to ensure that all California Indian human remains and cultural materials are treated with dignity and respect. The code extends policy coverage to non-federally recognized tribes, as well as federally recognized groups.

D.5.2.3 Regional Policies, Plans, and Regulations

The following San Diego County policies and plans are applicable to the proposed project.

San Diego County Administrative Code Section 396.7

San Diego County Administrative Code Section 396.7 establishes the San Diego County Local Register of Historical Resources. Approved by the County Board of Supervisors in 2002, Section 396.7 contains criteria for automatic listing on the local register, identifies types of resources eligible for nomination for listing, identifies special consideration, and details the application process for listing on the register.

County of San Diego General Plan – Conservation Element

Chapter 5 of the Conservation and Open Space Element of the County of San Diego General Plan contains policies regarding the conservation and protection of significant cultural resources. The following goals and policies would be applicable to SDG&E's proposed project.

Goal COS-7 Protection and Preservation of Archaeological Resources. Protection and preservation of the County's important archaeological resources for their

cultural importance to local communities, as well as their research and educational potential.

- COS-7.1 Archaeological Protection.** Preserve important archaeological resources from loss of destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.
- COS-7.2 Open Space Easements.** Require development to avoid archaeological resources wherever possible. If complete avoidance is not possible, require development to fully mitigate impacts to archaeological resources.
- COS-7.3 Archaeological Collections.** Require the appropriate treatment and preservation of archaeological collections in a culturally appropriate manner.
- COS-7.4 Consultation with Affected Communities.** Require consultation with affected communities, including local tribes to determine the appropriate treatment of cultural resources.
- COS-7.5 Treatment of Human Remains.** Require human remains be treated with the utmost dignity and respect and that the disposition and handling of human remains will be done in consultation with the Most Likely Descendant (MLD) and under the requirements of Federal, State, and County regulations.
- COS-7.6 Cultural Resource Data Management.** Coordinate with public agencies, tribes, and institutions in order to build and maintain a central database that includes a notation whether collections from each site are being curated, and if so, where, along with the nature and location of cultural resources throughout the County of San Diego.
- Goal COS-8 Protection and Conservation of the Historical Built Environment.** Protection, conservation, use, and enjoyment of the County's important historic resources.
- COS-8.1 Preservation and Adaptive Reuse.** Encourage the preservation and/or adaptive reuse of historic sites, structures, and landscapes as a means of protecting important historic resources as part of the discretionary application process, and encourage the preservation of historic structures identified during the ministerial application process.
- COS-9.1 Preservation.** Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.

COS-9-2 Impacts of Development. Require development to minimize impacts to unique geologic features from human related destruction, damage, or loss.

Resource Protection Ordinance

The Resource Protection Ordinance (RPO) requires that cultural resources be evaluated as part of the County’s discretionary environmental review process. If cultural resources are found to be significant through the RPO process, then they must be preserved (County of San Diego 2007c). The RPO prohibits development, trenching, grading, clearing, and grubbing, or any other activities that could potentially impact cultural resources (except during scientific investigations with an approved research design prepared by archaeologists certified by the Society of Professional Archaeologists (now the Register of Professional Archaeologists)).

County of San Diego Zoning Ordinance (1978)

Sections 5700 through 5749, Historical/Archaeological Landmark and District Area Regulations, provides provisions to “identify, preserve, and protect the historic, cultural, archaeological, and/or architectural resource values of designated landmarks and districts and encourage compatible uses and architectural design” (Section 5700). The zoning ordinance (Section 5703) designates historic/archaeological areas with a Historic/Archaeological Landmark or District (H) designation. Lands associated with the H designation contain limitation on use and construction and other regulations intended to conserve and protect on-site resources.

County of San Diego Guidelines for Determining Significance – Paleontological Resources

Sections 1 and 2 of these guidelines define paleontological resources and lists state and local regulations and standards. Sections 3 and 4 discuss ratings and sensitivity and typical adverse effects. Sections 5 and 6 provide criteria for determining significance and the mitigation requirements for specific levels of impact and significance.

County of San Diego Grading Ordinance

Section 87.430 of the Grading Ordinance provides for the requirement of a paleontological monitor at the discretion of the County. In addition, the suspension of grading operation is required upon the discovery of fossils greater than 12 inches in any dimension. The ordinance also requires notification of the County official (e.g., Permit Compliance Coordinator). The ordinance gives the County official the authority to determine the appropriate resource recovery operation, which the permittee shall carry out prior to the County official’s authorization to resume normal grading operation.

Mills Act

The Mills Act is a program that provides property tax relief to owners of qualified historic properties that enter into contracts with local governments to restore and maintain their properties. Qualified historic places are those that are listed on any federal, state, county, or city register, including the NRHP and/or CRHR, California Historical Landmarks, State Points of Historical Interest, and locally designated landmarks. The Mills Act contract is 10 years and is automatically extended each year. The contract stays with the property when the property is transferred. The Mill Act program is administered and implemented by local governments. The County of San Diego is a participant in the Mills Act program.

D.5.3 Environmental Effects

D.5.3.1 Definition and use of CEQA Significance Criteria/Indicators under NEPA

Cultural Resources

Cultural resources are places or objects that are important for historical, scientific, and religious reasons and are of concern to cultures, communities, groups, or individuals. These resources may include buildings and architectural remains, archaeological sites and other artifacts that provide evidence of past human activity, human remains, or TCPs. In the context of a federally permitted undertaking, the “significance” of cultural resources must be determined by the Federal Lead Agency under a NEPA official in consultation with the SHPO and other interested parties. Any action, as part of an undertaking, that could affect a “significant” cultural resource is subject to review and comment under Section 106 of the NHPA of 1966. Cultural resources that retain integrity and meet one or more of the criteria of significance (36 CFR 60.6) qualify as significant and are eligible for listing on the NRHP; such resources must be managed in compliance with the Advisory Council’s regulations (36 CFR 800). Within the State of California there are also provisions in CEQA, its Guidelines, and other provisions of the California PRC for the protection and preservation of significant cultural resources (i.e., “historical resources” and “unique archaeological resources”). In addition, local regulations (County of San Diego) provide for the protection of cultural resources.

The following significance criteria apply to cultural resources:

- The project would cause a substantial adverse change in the significance of a historical resource as defined in 14 CCR 15064.5 and California Public Resources Code, Section 21083.2. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.

- The project would cause a substantial adverse change in the significance of a unique archaeological resource as defined in 14 CCR 15064.5 and California Public Resources Code, Section 21083.2. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.
- The project could disturb, uncover, expose, and/or damage any human remains including those interred outside of formal cemeteries and associated artifacts.
- The project would cause an adverse effect (substantial adverse change) to the characteristics or significance of a historic property or Traditional Cultural Property as defined by federal guidelines. Historic properties include any prehistoric or historic district, site, building, structure, or object, and its associated artifacts, remains, features, settings, and records, that is either listed in or determined eligible for inclusion in the NRHP; or any property not yet evaluated to determine whether it is eligible for the NRHP.

Cultural resources that do not satisfy any of these criteria do not merit consideration under NEPA, CEQA, or NHPA. CEQA discusses impacts to “cultural and historical resources” and “unique archaeological sites,” and the terms “significant cultural resource” and “historic property” also apply in the context of the NHPA and federal activities that may impact cultural resources.

Paleontological Resources

An affirmative response to or confirmation of the following guideline from the County of San Diego Guidelines for Determining Significance – Paleontological Resources will generally be considered a significant impact related to paleontological resources under CEQA Appendix G, as a result of project implementation, in the absence of scientific evidence to the contrary:

The project proposes activities directly or indirectly damaging to a unique paleontological resource or site. A significant impact to paleontological resources may occur as a result of the project if project-related grading or excavation will disturb the substratum or parent material below the major soil horizons in any paleontologically sensitive area of the County, as shown on the San Diego County Paleontological Resources Potential and Sensitivity Map.

D.5.3.2 Applicant Proposed Measures

SDG&E has proposed Applicant Proposed Measures (APMs) GEN-04 along with CULT-01 through CULT-09 that would be implemented as part of SDG&E’s proposed project to reduce impacts to historical resources, archaeological resources, paleontological resources, and human remains (see Section B.7 of this EIR/EIS).

D.5.3.3 Direct and Indirect Effects

Approval of the Permit to Construct and the Master Special Use Permit would authorize the continued operations and maintenance of SDG&E electric facilities within the CNF and authorize the power line replacement projects. Construction activities, access roads, stringing sites, laydown yards, and operations and maintenance activities associated with SDG&E’s proposed project could potentially impact historical resources, archaeological resources, and paleontological resources, and potentially disturb human remains. For purposes of this analysis, the APE included approximately 90 feet on either side of the power lines and circuits proposed for replacement and approximately 30 feet on either side of exclusive use access road centerlines and the actual footprint of all stringing sites, staging areas, guard structures, and fly yards.

Impact CUL-1 Result in a change in the significance of a historical resource as defined in Section 15064.5, or result in an effect to a historic property, as defined in Section 106 of NHPA and 36 CFR 800.

Construction

Table D.5-12 lists the CUL-1 impacts and classification of the impacts associated with the construction of each of the proposed power line replacement projects.

**Table D.5-12
Power Line Replacement Projects – CUL-1 Impacts**

Project Components	Historic Built Resource (building, structure, object)	Description of Impact	Significance Determination
TL682	SDI-9580 (BW-103), historic water basins	One replacement pole is located within this resource site; however, SDG&E’s proposed project does not anticipate impacting this resource.	Class II under CEQA and not adverse under NEPA and NHPA.
TL626	SDI-19031, historical lumber mill	One replacement pole and access road are located within this resource site and could have a direct impact on this resource.	Class II under CEQA and not adverse under NEPA and NHPA.
TL625	None	None	No impact under CEQA and not adverse under NEPA and NHPA.
TL629	None	None	No impact under CEQA and not adverse under NEPA and NHPA.
TL6923	None	None	No impact under CEQA and not adverse under NEPA and NHPA.
C79	P-37-015813, historical structure	Proposed underground conduit is located near this resource site and could have an indirect impact on this resource.	Class II under CEQA and not adverse under NEPA and NHPA.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-12
Power Line Replacement Projects – CUL-1 Impacts**

Project Components	Historic Built Resource (building, structure, object)	Description of Impact	Significance Determination
C78	None	None	No impact under CEQA and not adverse under NEPA and NHPA.
C157	None	None	No impact under CEQA and not adverse under NEPA and NHPA.
C442	P-37-014420, P-37-014419, P-37-014427, P-37-014424, P-37-014425, P-37-014417, P-37-014418, P-37-014423, P-37-014422 (historical cabins)	Overhead lines at nine replacement poles are attached to historic resources and could have a direct impact to these resources.	Class II under CEQA and not adverse under NEPA and NHPA.
C440	P-37-014455, P-37-014457, P-37-014460, P-37-014407, P-37-014402, P-37-014475, P-37-014470, P-37-014482, P-37-014458, P-37-014451, P-37-014463, P-37-014461, P-37-014464, P-37-014458, P-37-014435, P-37-014444 (historical cabins)	16 new poles are located near these resource sites and could have an indirect impact on these resources.	Class II under CEQA and not adverse under NEPA and NHPA.
	P-37-014454, P-37-014448, P-37-014413, P-37-014483, P-37-014465, P-37-014470, P-37-014467, P-37-014490, P-37-014491, P-37-014410, P-37-014485, P-37-14487, P-37-14488, P-37-14411, P-37-14489, P-37-014480, P-37-014479, P-37-014478, P-37-014476, P-37-014481, P-37-014408, P-37-014409, P-37-014468, P-37-014456, P-37-014462, P-37-014452, P-37-014472, P-37-014450, P-37-014453, P-37-014459, P-37-014474, P-37-014473, P-37-014396, P-37-014433, P-37-014441, P-37-014437, P-37-014436, P-37-014435, P-37-014434 (historical cabins)	Overhead lines at 39 replacement poles are attached to these historical resources and could have a direct impact on these resources.	
C449	None	None	No impact under CEQA and not adverse under NEPA

Source: ASM 2011

As listed in Table D.5-12, power lines proposed to be replaced and/or access roads are located within the historical resource site or attached to the historical resource. More specifically, 1 historical resource was identified along TL682, 1 historical resource was identified along TL626, 1 historical resource was identified along C79, 9 historical resources were identified along C442, and 56 historical resources were identified along C440. Impacts to these historical resources due to construction activities associated with the proposed power line replacement projects would be potentially adverse and significant as described in Table D.5-12. Mitigation Measures (MM) MM CUL-1 and MM CUL-2 and APM CUL-01, APM CUL-04, and APM CUL-05 have been provided to reduce potential impacts to historical resources. Accordingly, with implementation of MM CUL-1 and MM CUL-2 and APM CUL-01, APM CUL-04, and APM CUL-05, potential adverse and significant impacts to historical resources would be mitigated under NEPA and would be less than significant with mitigation under CEQA (Class II). With implementation of MM CUL-1 there will be no adverse effect to historic properties associated with the implementation of the proposed project, in accordance with NHPA Section 106.

MM CUL-1 In order to reduce adverse effects and significant impacts to resources identified in Table D.5-12, new poles near identified cultural sites along TL626 and TL682 shall be set within 4 feet of the existing pole. Additionally, construction vehicles and personnel shall stay within the access road, and no blading of the access road shall occur. If the new pole needs to be placed more than 4 feet from the existing pole or if pole replacement consists of a foundation pole or undergrounding, a cultural monitor shall be required.

In order to avoid adverse effects to historic properties, SDG&E will implement a comprehensive approach to cultural resource management consistent with any project specific Programmatic Agreement developed between the federal agencies and the SHPO. The comprehensive approach will include, at a minimum, the following elements:

1a – Inventory and evaluate cultural resources in the Final Area of Potential Effect (APE). Prior to any ground disturbing activities, SDG&E will complete inventories within the APE and submit the results of those inventories for approval by the CPUC and federal agencies. These surveys shall supplement surveys done for the EIR/EIS and will satisfy Section 106 requirements.

1b. – Avoid and protect potentially significant resources. Where feasible, complete avoidance of impacts shall be the preferred strategy. Where the federal agencies and CPUC decide that cultural resources cannot be avoided, they will be incorporated into a Historic Properties Treatment Plan as described below.

1c. – Develop and Implement Historic Properties Treatment Plan. After completing the inventory and avoidance phase of site design, SDG&E will prepare and submit for approval a Historic Properties Treatment Plan (HPTP) to avoid or mitigate identified potential impacts.

1d. – Conduct data recovery to reduce adverse effects. If eligible resources, as determined by the federal agencies and the SHPO, cannot be protected from direct impacts of the project or alternatives, data-recovery investigations shall be conducted by SDG&E to reduce adverse effects to the characteristics of each property that contribute to its eligibility, using procedures described in the HPTP.

1e. – Monitor construction activities. Incorporate monitoring as described in AMP CUL-04. If any cultural resources are unexpectedly encountered, the monitor will stop work and notify the appropriate federal Heritage Program Manager or CPUC representative, depending on the location of the discovery.

MM CUL-2 In order to reduce adverse effects and significant impacts to historic resources along C79, C440, and C442 as identified in Table D.5-12, the original exterior materials on the cabins shall not be removed, modified, or covered. If equipment attached to the cabins must be replaced, the equipment shall retain its original appearance in terms of materials and size. If this cannot be met, then a cultural monitor is required to be present during the replacement of the lines to minimize modifications to the cabin exteriors.

Operations and Maintenance

Operations and maintenance of the proposed power line replacement projects along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks, similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project in such a way as to alter or adversely affect known historic resources and therefore would not exceed the significance threshold. As such, impacts to historical resources due to operations and maintenance would not be adverse under NEPA and under CEQA would be less than significant (Class III).

Impact CUL-2 Result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, or result in an effect to a historic property, as defined in Section 106 of NHPA and 36 CFR 800.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

Construction

Table D.5-13 lists the CUL-2 impacts, archaeological resources, impact description from the power line replacement projects, and significance determination identified for each of the applicant proposed power line replacement projects.

**Table D.5-13
Power Line Replacement Projects – CUL-2 Impacts**

Project Components	Archaeological Resource	Description of Impact	Significance Determination
TL682	SDI-19748 (BW-109), SDI-5987, SDI-19747 (BW-108), SDI-615, P-37-032756 (BW-I-147), SDI-19746 (BW-107), SDI-19744 (BW-105), SDI-19745 (BW-106), SDI-19743 (BW-104), P-37-032754 (BW-I-145), P-37-032755 (BW-I-146), SDI-19739 (BW-98), SDI-789, SDI-791, SDI-10449, SDI-9694, SDI-770, SDI-10663, SDI-19749 (BW-97), SDI-19737 (BW-96), SDI-17883, SDI-19738 (BW-101), SDI-19742 (BW-102), P-37-032751 (BW-I-142), P-37-032752 (BW-I-143), P-37-032753 (BW-I-144), P-37-032750 (BW-I-141), P-37-032749 (BW-I-140), P-37-032748 (BW-I-139), SDI-19741 (BW-100), SDI-19740 (BW-99), P-37-032747 (BW-I-138)	Thirty-five (35) replacement pole locations were identified near an archaeological site. Additionally, 10 facilities and 123 poles were identified in areas of high potential for buried cultural deposits (see Appendix CUL-1 (confidential) of this EIR/EIS for further detail).	Class II under CEQA and not adverse under NEPA and NHPA.
TL626	SDI-17884, SDI-19359 (ASM-626-3), SDI-4592, SDI-5724/W-493, SDI-7102, BW-I-06, SDI-19360, SDI-16880, SDI-7110, SDI-16878, ASM-626-2, SDI-19371, SDI-19025, SDI-19353, SDI-19372 (BW-02), SDI-12950, SDI-7929/SDI-10950, SDI-19354, SDI-5556, SDI-5442, SDI-19362, SDI-19355, SDI-4280, SDI-17877, SDI-19169, SDI-4278, P-037-030457, SDI-17887, SDI-15659, SDI-6650/W-904, SDI-5920, BW-I-01, SDI-12951, SDI-12957, SDI-5557, SDI-19026, SDI-5721	Six replacement pole locations and three new pole locations were identified near an archaeological site. Additionally, there are 457 poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.
TL625	SDI-19353, SDI-7929/SDI-10950, SDI-19354, SDI-5442, SDI-19362, KM-7iso, SDI-19355, SDI-4280, SDI-4276, SDI-4278, P-037-030457, SDI-6650/W-904, SDI-5920, SDI-19367, SDI-19026, SDI-12106/12107, SDI-12108, SDI-12110, SDI-12109	Six replacement pole locations were identified near an archaeological site. Additionally, there are 244 poles in areas of high potential for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.5 CULTURAL AND PALEONTOLOGICAL RESOURCES**

**Table D.5-13
Power Line Replacement Projects – CUL-2 Impacts**

Project Components	Archaeological Resource	Description of Impact	Significance Determination
TL629	P-37-032757 (EP-4 iso)late, P-37-032758 (EP-5 iso)late, P-37-032759 (EP-6 iso)late, SDI-16503, SDI-18119, SDI-8855, SDI-8302, SDI-8301, SDI-19351 (KM-15), P-37-024023, SDI-19366 (ASM-6), SDI-19352 (ASM-5), P-37-015165, SDI-17212, SDI-11976, KM-16, SDI-9392, P-37-032760 (EP-7 iso)late, P-37-030474 (EP-8), P-37-032761 (EP-9 iso)late, P-37-030472 (KM-21), P-37-030473 (KM-22), P-37-030475 (BW-01), SDI-8239, SDI-4787, SDI-80, SDI-19026, P-37-032762 (EP-10 iso)late, P-37-032746 (BW-I-04), SDI-5500, SDI-17281, SDI-17282, BW-I-250, SDI-21046 (JH-01), SDI-21047 (JH-02), SDI-8951	Seven replacement pole locations were identified near an archaeological site. However, existing access roads that pass through two pole locations would be eliminated and these poles are proposed to be helicopter set. Additionally, there are 327 poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.
TL6923	SDI-11605, SDI-8443, SDI-8444, SDI-8445, SDI-20224 (SPAP-S-4), SDI-20223 (Potrero 2), SDI-20148 (BW-174), SDI-17999, SDI-17998, SDI-17989, SDI-19280, SDI-8439, SDI-19805, SDI-19795, SDI-19279, SDI-10040, SDI-19040, SDI-19039, SDI-4724, SDI-19811, SDI-19813, SDI-16773, SDI-17095, SDI-17093/17096	Twenty-three (23) replacement pole locations were identified near an archaeological site. Additionally, there are 13 poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.
C79	SDI-9075, SDI-9081, SDI-9082, SDI-9086, SDI-17032, SDI-17041, SDI-20133 (TQ-S-1)	No replacement pole locations were identified near an archaeological site. However, the proposed underground conduit bisects two cultural resources and runs adjacent to six identified cultural resources. Additionally, there is one pole in an area of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.
C78	SDI-20131, SDI-20132	Installation of two new steel poles are located near two cultural resources. Additionally, there are three poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA NHPA.
C157	SDI-10615	Three replacement pole locations were identified near the prehistoric habitation. Additionally, 54 replacement poles are located in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.

**Table D.5-13
Power Line Replacement Projects – CUL-2 Impacts**

Project Components	Archaeological Resource	Description of Impact	Significance Determination
C442	SDI-9207, SDI-20149, SDI-9207, SDI-12731, SDI-9713, SDI-20140 (ARG-01)	Five (5) replacement pole locations were identified near archaeological sites, 10 replacement pole locations have overhead facilities attached to historical structures, and 3 poles would occur within bedrock outcrops. Additionally, there are 93 poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.
C440	SDI-116, SDI-9150, SDI-5852, SDI-5865, SDI-8504, SDI-8528, SDI-8529, SDI-8533, SDI-20134 (TQ-01), SDI-11232, SDI-11233, SDI-9402, SDI-9396, SDI-9399, SDI-9395, SDI-20158 (ARG-20), SDI-20135 (TQ-02), SDI-20136 (TQ-3), SDI-8506, SDI-8507, SDI-20137 (TQ-04), SDI-10113, SDI-10114, SDI-10108, SDI-8534, SDI-8512, SDI-8495, SDI-8496, SDI-20139 (TQ-06), SDI-8479, SDI-20138 (TQ-05), SDI-8493, SDI-8492/-15156, SDI-8550, SDI-17878, SDI-8483	One hundred and two (102) replacement pole locations and the proposed underground conduit were identified near one of the archaeological sites. Of the 102 replacement pole locations, 32 of the pole replacement locations, and 3 new poles are in, or immediately adjacent to cultural resource sites. Thirty-two (32) poles have overhead lines that are attached to historical residences. Additionally, there are 333 poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.
C449	SDI-80, SDI-16227/16229, SDI-20144 (BW-179), SDI-20145 (BW-180), SDI-16232, SDI-7885, SDI-20150 (C449-1), SDI-16231, SDI-20143 (ARG-8), SDI-20141 (ARG-5), SDI-7886, P-37-031709 (ARG-6), SDI-20142 (ARG-7)	Twenty-five (25) replacement pole locations were identified in or near one of the archaeological sites. Additionally, there are 13 poles in areas of high sensitivity for buried cultural deposits.	Class II under CEQA and not adverse under NEPA and NHPA.

The proposed power line replacement projects would replace existing wood pole structures with new steel pole structures, in addition to minor relocation, removal and undergrounding, generally within the same ROW alignment as the existing power lines. As described in Table D.5-13 and Appendix CUL-1, all construction components associated with all areas of SDG&E’s proposed project (i.e., TL682, TL626, TL625, TL629, TL6923, C79, C78, C157, C442, C440, and C449) have the potential to directly and/or indirectly impact archaeological resources. These construction components include grading associated with direct-bury steel pole work areas, self-supported steel pole work areas, staging areas, stringing sites, fly yards, guard structures, wood pole removal areas, guard structures, or trench work areas for underground duct banks, permanent underground concrete splice vaults, rock splitting/blasting, drill locations for new poles, and/or installation of other facilities.

In summary, 10 facilities and 123 poles along TL682, 244 poles along TL625, 457 poles along TL626, 327 poles at TL629, 13 poles along TL6923, 1 pole along C79, 5 poles along C157, 333 poles along C440, 93 poles along C442, and 13 poles along C449 are located in areas of high sensitivity for buried cultural deposits. Absent mitigation, impacts to archaeological resource sites located within the APE are considered potentially significant under CEQA and adverse under NEPA. MM CUL-1, MM CUL-3, APM CUL-01, APM CUL-02, APM CUL-04, APM CUL-05, APM CUL-06, and APM CUL-07 have been provided to reduce potential impacts to archaeological resources. Accordingly, with implementation of MM CUL-3, APM-CUL-01, APM CUL-02, APM CUL-04, APM CUL-05, APM CUL-06, and APM CUL-07, potential direct and indirect adverse and significant impacts to archaeological resources would be mitigated under NEPA and under CEQA, impacts would be less than significant with mitigation (Class II). With implementation of MM CUL-1 there will be no adverse effect to historic properties associated with the implementation of the proposed project, in accordance with NHPA Section 106.

MM CUL-3 During construction of the proposed power line replacement projects, all measures as identified in Tables 3 and 6 for TL625, Tables 9 and 11 for TL626, Tables 14 and 17 for TL629, Table 20 for TL682, Table 23 for TL6923, Table 26 for C78, Table 29 for C79, Table 31 for C157, Table 34 for C440, Table 37 for C442, and Table 40 for C449 of the Cultural Resources Technical Report prepared by ASM (ASM 2011) shall be implemented. All measures shall be implemented by a qualified archaeologist who is approved by the California Public Utilities Commission and Forest Service.

Operations and Maintenance

Approval of the power line replacement projects would authorize the continued operations and maintenance of SDG&E electric facilities within the CNF and authorize the power line replacement projects. No impacts to archaeological resources are anticipated during operations and maintenance activities for the proposed power line replacement projects since vehicles and crew would stay within the access roads and previously disturbed areas.

Impact CUL-3 Disturb any human remains, including those interred outside of formal cemeteries

Human burials have occurred outside of formal cemeteries, usually associated with archaeological resource sites and prehistoric peoples; therefore, areas with known archaeological resources sites may have a higher risk for containing human remains (County of San Diego 2011). Since the power line replacement projects are located within or near archaeological resources sites, the potential exists for unintended discovery of unknown human remains during subsurface construction activities. Per the California Health and Safety Code 7050.5, if human

remains are encountered during construction, no further disturbance shall occur until the County of San Diego coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the County coroner determines that the remains are not historic, but prehistoric, the NAHC must be contacted to determine the most likely descendent for this area. Once the most likely descendent is determined, treatment of the Native American human remains will proceed pursuant to Public Resources Code 5097.98. The NAHC may become involved with decisions concerning the disposition of the remains. The County coroner must be notified within 24 hours. Also, Part 3 Design Standards for the Southern California National Forest S61 mentions compliance with national forest, federal, and tribal policies in the event human remains are discovered. Additionally, APM CUL-07, requiring adherence to a specific protocol in the event human remains are discovered would be implemented. Therefore, with adherence to state and federal laws, forest and tribal policies, and implementation of APM CUL-07, potential impacts to human remains would not be adverse under NEPA and would be less than significant under CEQA (Class III).

Operations and Maintenance

Operations and maintenance of the proposed power line replacement projects along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks, similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project in such a way as to alter or adversely affect human remains and therefore would not exceed the significance threshold. As such, impacts to human remains due to operations and maintenance would not be adverse under NEPA and under CEQA would be less than significant (Class III).

Impact CUL-4 Cause an adverse change to Traditional Cultural Properties

No Traditional Cultural Properties (TCPs) have been identified within TL682, TL626, TL625, TL629, TL6923, C79, C78, C157, C440, C442, or C449. Therefore, construction of the project would not cause an adverse change to a TCP.

In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within TL682, TL 626, TL625, TL629, TL6923, C79, C78, C157, or C440. The NAHC indicated the presence of sacred sites within 0.5 mile of the C442 and C449 APE. Therefore, while it is assumed that the proposed replacement of C442 and C449 would not cause an adverse change to sacred sites recorded with the NAHC, proposed replacement of C442 and C449 may result in inadvertent adverse changes to a sacred site. APM CUL-01 and APM CUL-04, requiring training and archaeological monitoring during excavation activities, would be implemented. Accordingly, with implementation of these APMs, potential impacts to sacred sites

at C442 and C449 would be mitigated and would not be adverse under NEPA. Under CEQA, impacts would be less than significant (Class III).

Impact PALEO-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Table D.5-14 lists the PALEO-1 impacts and classification of the impacts associated with the construction of each of the proposed power line replacement projects.

As outlined in Table D.5-14, some of the proposed direct bury pole replacement sites occur in areas underlain by sedimentary rock units with a PFYC Class 3 ranking. It is possible that proposed excavation activities at these pole locations may result in disturbance or destruction of undiscovered paleontological resources in these areas along TL682, C442, and C440. APM CUL-01 and APM CUL-08, requiring training and paleontological monitoring during excavation activities, would be implemented. Accordingly, with implementation of APM CUL-01 and APM CUL-08, potential impacts to paleontological resources at TL682, C442, and C440 would not be adverse under NEPA and under CEQA, impacts would be less than significant (Class III).

Operations and Maintenance

Operations and maintenance of the proposed power line replacement projects along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks, similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project in such a way as to alter or adversely affect paleontological resources and therefore would not exceed the significance threshold. As such, impacts to paleontological resources due to operations and maintenance would not be adverse under NEPA and under CEQA would be less than significant (Class III).

**Table D.5-14
Power Line Replacement Projects – PALEO-1 Impacts**

Project Components (listed from North –South)	Geology	Potential Fossil Yield Classification	Description of Impact	Significance Determination
TL682	Pleistocene non-marine deposits attributable to the Pauba Formation (Qco) and Quaternary river terrace deposits (Qt), metasedimentary rocks of the Julian Schist, Holocene young alluvial deposits (Qya), Holocene fan (Qf), Holocene and late Pleistocene young alluvial fan deposits (Qyf), late to middle Pleistocene old alluvial fan deposits (Qof), and plutonic rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 2 (low), Class 3 (undetermined)	The following poles that are located within Pleistocene non-marine deposits are proposed for direct bury: Z118191 to Z118224, and Z210985.	Class II under CEQA and not adverse under NEPA
TL626	Fanglomerates of Pleistocene and possibly Tertiary age (QTf), metasedimentary rocks of the Julian Schist, and plutonic igneous rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 3 (Undetermined)	The following poles that are located within fanglomerate (QTfg) are proposed for direct bury: Z371557, Z371560, and Z371561. The following poles that are located within metasedimentary rocks, including Julian Schist are proposed for direct bury: P778979, Z371501, and Z371502.	Class II under CEQA and not adverse under NEPA
TL625	Metasedimentary rocks of the Julian Schist, Holocene young alluvium (Qya) and Holocene and Pleistocene colluvium (Qc), and igneous and metamorphic rocks.	Class 1 (very low), Class 2 (low), Class 3 (undetermined)	The following poles that are located within metasedimentary rocks, including Julian Schist, are proposed for direct bury locations: Z273024 through Z273029, and Z273034 through Z273036.	Class II under CEQA and adverse not under NEPA
TL629	Metasedimentary rocks of the Julian Schist, and Holocene young alluvium (Qya) and Holocene and Pleistocene colluvium (Qc).	Class 2 (low), Class 3 (undetermined)	The following poles that are located within metasedimentary rocks, including the Julian Schist are proposed for direct bury: Z173066, Z173067, Z273043, and Z172740.	Class II under CEQA and not adverse under NEPA
TL6923	Holocene young alluvium (Qya) and Holocene and Pleistocene colluvium (Qc), and plutonic rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 2 (low)	None of the poles proposed for direct bury will be located within areas underlain by PFYC Class 3 or higher geologic rock units.	Class III under CEQA and not adverse under NEPA

**Table D.5-14
Power Line Replacement Projects – PALEO-1 Impacts**

Project Components (listed from North –South)	Geology	Potential Fossil Yield Classification	Description of Impact	Significance Determination
C79	Fanglomerates of Pleistocene and possibly Tertiary age (QTf), metasedimentary rocks of the Julian Schist, and plutonic igneous rock units of the Peninsular Ranges Batholith	Class 1 (very low), Class 3 (undetermined)	No impacts to paleontological resources are anticipated along this project component.	Class II under CEQA and not adverse under NEPA
C78	Holocene and Pleistocene colluvium (Qc), and plutonic rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 2 (low)	None of the poles proposed for direct bury will be located within areas underlain by PFYC Class 3 or higher geologic rock units.	Class III under CEQA and not adverse under NEPA
C157	Plutonic igneous rock units of the Peninsular Ranges Batholith.	Class 1 (very low)	None of the poles proposed for direct bury will be located within areas underlain by PFYC Class 3 or higher geologic rock units.	Class III Under CEQA and not adverse under NEPA
C442	Metasedimentary rocks of the Julian Schist, Holocene young alluvium (Qya), and plutonic igneous rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 2 (low), Class 3 (undetermined)	The following poles that are located within metasedimentary rocks, including Julian Schist, are proposed for direct bury locations: P176978, P176979, P17982, P176983, P176984, P176991 through P176994, P176996 through P177001, P-29, and P-31.	Class II under CEQA and not adverse under NEPA
C440	Metasedimentary rocks of the Julian Schist, Holocene young alluvium (Qya) and Holocene and Pleistocene colluvium (Qc), and plutonic igneous rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 2 (low), Class 3 (undetermined)	The following poles that are located within metasedimentary rocks, including Julian Schist, are proposed for direct bury locations: P40034, P40035, P40045, P40046, P40047, P40050, P40052 through P40058, P40061. P-001, P-002, P40226, P40228 through P40232, P40262 through P40278, P45410, P46564, P40239, P40279, P40282, P40283, P40293 through P40296, P45860, P-003, P-305, P-306, and P40316.	Class II under CEQA and not adverse under NEPA
C449	Holocene young alluvium (Qya), and plutonic igneous rock units of the Peninsular Ranges Batholith.	Class 1 (very low), Class 2 (low)	None of the poles proposed for direct bury will be located within areas underlain by PFYC Class 3 or higher geologic rock units.	Class III under CEQA and not adverse under NEPA

D.5.4 Forest Service Proposed Actions

D.5.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Each of the five options for the Forest Service Proposed Actions for TL626 would relocate a segment of TL626. The farthest relocation would be approximately 2 miles to the east of the existing alignment. While intensive field surveys have not been completed, the records search completed for SDG&E's proposed project encompasses all five options; therefore, for purposes of the analysis conducted in this document, the environmental setting is assumed to be similar to that identified in Sections D.5.1 and D.5.2.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts CUL-1 through CUL-3: This alternative would reroute a segment of TL626 to the east along a new, undisturbed ROW approximately 5.5 miles (Option 1) or 5.6 miles (Option 2) (Figure B-4a). All other project components would remain the same. There is a greater potential that cultural resources could be significantly impacted by options 1 and 2 within the new undisturbed ROW where the disturbance area would be greater due to longer distance and need for new access roads compared to the reconstruction of TL626 in place as proposed. Similar to SDG&E's proposed project, these impacts are anticipated to be mitigated through the avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described below:

- Identified CUL-1 impacts (historic properties): It is anticipated that adverse effects and significant CUL-1 impacts can be mitigated under NEPA and avoided under the NHPA by implementing MM CUL-1, MM CUL-3, as well as APM CUL-01 through APM CUL-07 and APM CUL-09. Under CEQA, impacts would be considered significant, or adverse under NEPA, but can be mitigated to a level that is considered less than significant (Class II).
- Identified CUL-2 impacts (archaeological resources): It is anticipated that adverse effects and significant CUL-2 impacts can be mitigated under NEPA and avoided under the NHPA by implementing MM CUL-1, MM CUL-3, as well as APM CUL-01 through CUL-07 and APM CUL-09. Under CEQA, impacts would be considered significant, or adverse under NEPA, but can be mitigated to a level that is considered less than significant (Class II).

-
- Identified CUL-3 impacts (disturbance of human remains): It is anticipated that CUL-3 impacts would not be adverse under NEPA. With adherence to state and federal laws, forest and tribal policies, and implementation of APM CUL-07, potential impacts to human remains would not be adverse under NEPA and would be less than significant under CEQA (Class III).
 - Identified CUL-4 impacts (traditional cultural properties): In response to the Sacred Lands File search, the NAHC indicated that there are no documented sacred sites within the vicinity of TL626, and no traditional cultural properties have been identified. However, the Forest Service has not initiated or completed consultation and there remains the possibility that Native American sacred sites or traditional cultural properties would be identified as a result of the federal tribal consultation process. Therefore, while it is assumed that the relocation of TL626, as proposed under options 1 and 2, would not cause an adverse change to sacred sites recorded with the NAHC or traditional cultural properties, proposed relocation of TL626 may result in inadvertent adverse changes to a sacred site or traditional cultural property. Similar to SDG&E's proposed project, APM CUL-01 and APM CUL-04, requiring training and archaeological monitoring during excavation activities, would be implemented. Accordingly, with implementation of these APMs, potential adverse effects to sacred sites are anticipated to be mitigated under NEPA, and under CEQA, significant impacts would be less than significant (Class II).
 - Identified PALEO-1 impacts (paleontological resources): Excavation activities may result in disturbance or destruction of undiscovered paleontological resources along the new ROWS proposed. Similar to SDG&E's proposed project, APM CUL-1 and APM CUL-08, requiring training and paleontological monitoring during excavation activities, would be implemented. Accordingly, with implementation of APM CUL-01 and APM CUL-08, potential impacts to paleontological resources would be mitigated under NEPA, and under CEQA, would be less than significant (Class III).

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road. As shown in Figure B-4b, the rerouted underground segment of Option 3a is approximately 11.4 miles long, and the rerouted segment of Option 3b is approximately 6.3 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment). All other project components would remain the same. While these options would place TL626 in the existing Boulder Creek ROW, which is disturbed, there would be a higher risk that unknown cultural resources could be significantly impacted where the disturbance area would be greater compared

to the reconstruction of TL626 in place as proposed. Similar to SDG&E's proposed project, these adverse effects and significant impacts are anticipated to be mitigated through the avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described under TL626 relocation options 1 and 2.

Option 4: Overhead Relocation along Boulder Creek Road

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Option 4 would consist of relocating a segment of TL626 overhead along Boulder Creek Road to the Pine Hills Fire Station (approximately 7.5 miles) and then merging with proposed Options 1 or 2 overland alignments for approximately 2.1 miles to interconnect with pole Z213680 (see Figure B-4a). All other project components would remain the same. While this option would place TL626 in the existing Boulder Creek ROW, which is disturbed, there would be a slightly higher risk that unknown cultural resources could be significantly impacted due to the longer ROW and associated disturbance area required compared to the reconstruction of TL626 in place as proposed. Similar to SDG&E's proposed project, these adverse effects and significant impacts (CUL-1 through CUL-4) to archaeological resources are anticipated to be mitigated through the avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described under TL626 relocation options 1 and 2.

While Option 4 would result in construction of poles and overhead lines near to a National Register eligible building (Building #1310—barracks—of the Pine Hills Fire Station), the building is considered eligible based on locally significant events (Criterion A) and design (Criterion C), with no contributing visual element (Newland 1995). Regardless, implementation of MM VIS-1 in Section D.2, Visual Resources, of this EIR/EIS will further minimize the visual prominence and contrast of constructed poles. Therefore, construction of Option 4 would not have an adverse effect or significant impact on historical resources.

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Option 5 would consist of relocating a portion of TL626 around the Inaja Picnic Area, and as shown in Figure B-4c, would consist of approximately 2,100 feet of relocated overhead alignment along with a 400-foot underground segment located within an existing parking lot. All other project components would remain the same. There would be a slightly higher risk that unknown cultural resources could be significantly impacted due to the slightly longer ROW and associated disturbance area required compared to the reconstruction of TL626 in place as proposed. Similar to SDG&E's proposed project, these adverse effects and significant impacts are anticipated to be mitigated through the

avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described under TL626 relocation options 1 and 2.

D.5.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.5.1 and D.5.2 describe the existing cultural and paleontological resources setting associated with SDG&E's proposed project. The Forest Service Proposed Action for C157 is within the APE identified for SDG&E's proposed project; therefore, for purposes of the analysis conducted in this document, the environmental setting is assumed to be the same as that identified in Sections D.5.1 and D.5.2.

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). All other project components would remain the same. While no cultural resources were identified within the vicinity of replacement poles identified under options 1 and 2, there is a potential that cultural resources or paleontological resources could be significantly impacted by options 1 and 2 (Impacts CUL-1 through CUL-4 and Impact PALEO-1) in the new undisturbed ROW. These adverse effects and significant impacts are anticipated to be similar to SDG&E's proposed project due to similar disturbance areas and absence of known resources and can be mitigated through the avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described in Section D.5.4.1, TL626 Alternative Routes.

D.5.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

As this area is in the same geographic region as SDG&E's proposed project and would consist of undergrounding within existing paved road ROWs, the environmental setting is assumed to be similar to that identified in Sections D.5.1 and D.5.2.

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Besides undergrounding C440 as proposed by the project, this alternative would consist of undergrounding an additional 14.3 miles of C440 within existing paved roadways in the Laguna Mountain Recreation Area. All other project

components would remain the same. During construction, soil disturbance would be greater under this alternative as open trenching would be more invasive than excavation for power line poles. Although the ROWs would be within existing roadways, there is a potential that unknown cultural resources could be significantly impacted by this alternative (Impacts CUL-1 through CUL-4 and PALEO-1). Similar to SDG&E's proposed project, these adverse effects and significant impacts are anticipated to be mitigated through the avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described in Section D.5.4.1, TL626 Alternative Routes.

D.5.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.5.1 and D.5.2 describe the existing cultural and paleontological resources setting associated with TL682. The BIA Proposed Action for TL682 would relocate a portion of the line and underground approximately 1,500 feet on tribal lands. As this area is in the same APE identified for SDG&E's proposed project, the environmental setting would be identical to that identified in Sections D.5.1 and D.5.2.

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: This alternative would consist of placing a portion of the TL682 underground and relocating certain poles on tribal lands. All other project components would remain the same. During construction, soil disturbance would be greater under this alternative as open trenching for undergrounding activities would be more invasive than excavation for power line poles. In addition, the pole relocation would be located in a new undisturbed ROW on tribal lands. While no cultural resources were identified in the vicinity of the undergrounding and realignment poles, there is a potential, due to the greater disturbance area required, that cultural resources or paleontological resources could be adversely affected or significantly impacted (Impacts CUL-1 through CUL-4 and Impact PALEO-1). These adverse effects and significant impacts are anticipated to be similar to SDG&E's proposed project due to the absence of known resources and can be mitigated through the avoidance of the resources in project siting or through implementation of APMs and mitigation measures as described in Section D.5.4.1, TL626 Alternative Routes.

D.5.6 Additional Alternatives

D.5.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.5.1 and D.5.2.

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under this alternative, overland access in rugged terrain that exceeds grades of 25% for appreciable distances in proximity to creeks (as outlined in Section C.4.2) would be removed and the areas restored. This alternative removes up to 10.5 miles of certain segments of existing exclusive use access roads that are too steep to effectively control road drainage, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre). All other project components would remain the same. Because a portion of existing access roads would be removed and the areas restored, Impacts CUL-1 through CUL-4 and PALEO-1 would reflect similar impact findings previously discussed in Section D.5.3.3.

D.5.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace it with system upgrades, either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with these upgrades is described as follows:

- a. Upgrade the existing 69 kV TL6931 from Crestwood to the Boulevard Substation (See Figure C-1). The setting associated with the 6-mile existing TL6931 has largely been described in SDG&E's PEA TL6931 (SDG&E 2012). As described in the PEA, 14 archaeological sites have been identified within or adjacent to TL 6931, and the site has no paleontological potential.
- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation.

This area was systematically surveyed by ASM Affiliates Inc. in 2009 and 2010 as part of the Sunrise Powerlink Project's decision-making for the selected route and a parallel proposed alternative route. During the survey and literature review, three resources were identified in the vicinity including SDI-19793, an identified prehistoric bedrock milling

site. The other two resources—SDI-19847 (SPAP-S-8) and SPAP-S-9—were both determined to not be cultural. All three resources occur south of Suncrest Substation. The majority of the terrain over which the loop-in of TL625 would occur is located on high mountain ridges with steep drainages that have a low potential for buried cultural deposits. Five other resources are within 0.5-mile of the proposed alignment, with two being evaluated and removed by construction of Suncrest Substation and the remaining three recorded northwest of the existing substation.

- c. Convert a 6.5-mile portion of TL626 from the Santa Ysabel and Boulder Creek Substations from 69 kV to 12 kV, along with a 6.8-mile section that is co-located with C79 within the same study area as SDG&E's proposed project. Therefore, the environmental setting would be the same as that identified in Sections D.5.1 and D.5.2.

Environmental Effects

Reconstruction of TL6931

Impacts CUL-1 through CUL-4 and PALEO-1: Upgrading the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation involves replacing wood poles with steel poles. Construction activities, access roads, stringing sites, laydown yards, and operations and maintenance activities associated with pole replacement along the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation, could potentially impact historical and archaeological resources and potentially disturb human remains (Impacts CUL-1 through CUL-4). While it is anticipated that previously recorded archaeological resource sites could be avoided through implementation of proposed APMs, there is still the potential for inadvertent impacts to resources discovered during implementation. As with SDG&E's proposed project, with implementation of mitigation measures as described in Section D.5.4.1, TL626 Alternative Routes, adverse effects and significant Impacts CUL-1 through CUL-4 and PALEO-1 would be mitigated under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II).

Development of the New 3-Mile Loop-in of TL625

Impacts CUL-1 through CUL-4 and PALEO-1: New construction to loop in TL629 between Loveland-Barrett and the Suncrest Substation would occur within 100 feet of the Sunrise Powerlink transmission line. Extensive cultural resources work completed for the Sunrise Powerlink transmission line provides a knowledge base that reduces the risk of impacting cultural or paleontological resources during implementation of the TL629 loop-in component. While it is anticipated that previously recorded archaeological resource sites could be avoided through implementation of proposed APMs, there is still the potential for inadvertent impacts to resources discovered during implementation. As with SDG&E's proposed project, with

implementation of mitigation measures as described in Section D.5.4.1, TL626 Alternative Routes, adverse effects and significant Impacts CUL-1 through CUL-4 and PALEO-1 would be mitigated under NEPA, and under CEQA, would be less than significant with mitigation (Class II).

Convert Segments of TL626 from 69 kV to 12 kV

Impacts CUL-1 through CUL-4 and PALEO-1: Conversion of segments of TL626 to 12 kV would consist of construction as well as operations and maintenance activities similar to those described for the project; therefore, Impacts CUL-1 through CUL-4 would reflect similar impact findings previously discussed in Section D.5.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of mitigation measures as described in Section D.5.4.1, TL626 Alternative Routes, adverse effects and significant Impacts CUL-1 through CUL-4 and PALEO-1 would be mitigated under NEPA, and under CEQA, would be less than significant with mitigation (Class II).

D.5.7 No Action Alternative

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of in-kind replacement facilities in conformance with California Independent System Operator (CAISO) requirements and/or alternatives means of delivering electrical service elsewhere would result in an increase in the overall disturbance area, and therefore, an increase in impacts compared to reconstruction of lines in place as proposed.

D.5.8 No Project Alternative

Environmental Effects

Impacts CUL-1 through CUL-4 and PALEO-1: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electrical facilities would remain; therefore, none of the construction impacts to cultural or historical resources described in Section D.5.3 would occur. Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. While these activities represent a potential impact to cultural resources, they would not increase in duration, intensity, or frequency over

existing conditions; therefore, no impacts over existing conditions to cultural resources would occur.

D.5.9 Mitigation Monitoring, Compliance, and Reporting

Table D.5-15 presents the mitigation monitoring, compliance, and reporting program for cultural and paleontological resources for the power line replacement projects and alternatives.

**Table D.5-15
Mitigation Monitoring, Compliance, and Reporting –
Cultural and Paleontological Resources**

Mitigation Measure	<p>MM CUL-1 In order to avoid adverse effects to historic properties, SDG&E will implement a comprehensive approach to cultural resource management consistent with any project specific Programmatic Agreement developed between the federal agencies and the SHPO. The comprehensive approach will include, at a minimum, the following elements:</p> <p>1a – Inventory and evaluate cultural resources in the Final Area of Potential Effect (APE). Prior to any ground disturbing activities, SDG&E will complete inventories within the APE and submit the results of those inventories for approval by the CPUC and federal agencies. These surveys shall supplement surveys done for the EIR/EIS and will satisfy Section 106 requirements.</p> <p>1b. – Avoid and protect potentially significant resources. Where feasible, complete avoidance of impacts shall be the preferred strategy. Where the federal agencies and CPUC decide that cultural resources cannot be avoided, they will be incorporated into a Historic Properties Treatment Plan as described below.</p> <p>1c. – Develop and Implement Historic Properties Treatment Plan. After completing the inventory and avoidance phase of site design, SDG&E will prepare and submit for approval a Historic Properties Treatment Plan (HPTP) to avoid or mitigate identified potential impacts.</p> <p>1d. – Conduct data recovery to reduce adverse effects. If eligible resources, as determined by the federal agencies and the SHPO, cannot be protected from direct impacts of the project or alternatives, data-recovery investigations shall be conducted by SDG&E to reduce adverse effects to the characteristics of each property that contribute to its eligibility, using procedures described in the HPTP.</p> <p>1e. – Monitor construction activities. Incorporate monitoring as described in AMP CUL-04. If any cultural resources are unexpectedly encountered, the monitor will stop work and notify the appropriate federal Heritage Program Manager or CPUC representative, depending on the location of the discovery.</p>
<i>Location</i>	SDG&E's proposed project and all alternatives
<i>Compliance Documentation^(e) and Consultation</i>	<ul style="list-style-type: none"> a. Approval of Final APE surveys b. Approval of final designs documenting avoidance. c. Approval of HPTP d. Approval of recovery plans e. Monitor construction activities and data recovery
<i>Timing</i>	<ul style="list-style-type: none"> a. Prior to construction b. and c. Prior to issuance of notice to proceed e. During construction

Table D.5-15
Mitigation Monitoring, Compliance, and Reporting –
Cultural and Paleontological Resources

<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project</u>: CPUC ,Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM CUL-2 In order to reduce adverse effects and significant impacts to historic resources along C79, C440, and C442 as identified in Table D.5-12 of the EIR/EIS, the original exterior materials on the cabins shall not be removed, modified, or covered. If equipment attached to the cabins must be replaced, the equipment shall retain its original appearance in terms of materials and size. If this cannot be met, then a cultural monitor is required to be present during the replacement of the lines to minimize modifications to the cabin exteriors.</p>
<i>Location</i>	C79, C440, and C442 for SDG&E's proposed project and all alternatives with identified historic resources
<i>Compliance Documentation^(e) and Consultation</i>	<p>a. Letter of conformance</p> <p>b. Map of locations of cabins where requirement cannot be met</p> <p>c. CPUC/Forest Service monitor: Conduct in-field inspections of historic structures</p> <p>d. CPUC/Forest Service monitor: Line item in compliance monitoring reports</p>
<i>Timing</i>	<p>a. and b. Prior to issuance of notice to proceed</p> <p>c. During construction</p> <p>d. Prior to and during construction</p>
<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project</u>: CPUC, Forest Service, and California State Parks</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM CUL-3 During construction of the proposed power line replacement projects, all measures as identified in Tables 3 and 6 for TL625, Tables 9 and 11 for TL626, Tables 14 and 17 for TL629, Table 20 for TL682, Table 23 for TL6923, Table 26 for C78, Table 29 for C79, Table 31 for C157, Table 34 for C440, Table 37 for C442, and Table 40 for C449 of the Cultural Resources Technical Report prepared by ASM (ASM 2011) shall be implemented. All measures shall be implemented by a qualified archaeologist who is approved by the California Public Utilities Commission and Forest Service.</p>
<i>Location</i>	TL625, TL626, TL629, TL682, TL6923, C78, C79, C157, C440, C442, C449
<i>Compliance Documentation^(e) and Consultation</i>	<p>a. Documentation indicating completion of all measures provided in the cultural resources report prepared by ASM for each power and distribution line.</p> <p>b. Map identifying all environmentally sensitive areas to be flagged and avoided during construction</p> <p>c. Archaeologist qualifications</p> <p>d. CPUC/Forest Service monitor: Line item in compliance monitoring reports</p>
<i>Timing</i>	<p>a. Prior to and during construction</p> <p>b. Prior to issuance of notice to proceed</p>

Table D.5-15
Mitigation Monitoring, Compliance, and Reporting –
Cultural and Paleontological Resources

	c. At least 1 week prior to construction d. Prior to and during construction
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

D.5.10 Residual Unavoidable Effects

Under NEPA, SDG&E's proposed project and alternatives would result in adverse but mitigated effects through implementation of mitigation measures presented in Section D.5.9, along with APMs provided in Section D.5.3.2. Similarly, Under CEQA, implementation of mitigation measures presented in Section D.5.9 would mitigate all cultural and paleontological resource impacts to less than significant. Therefore, no residual unavoidable effects would occur for SDG&E's proposed project or alternatives.

D.5.11 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

16 U.S.C. 431–433. American Antiquities Act of 1906, as amended.

16 U.S.C. 469–469c. Archaeological and Historic Preservation Act of 1974, as amended.

16 U.S.C. 470–470kk. National Historic Preservation Act of 1966 (NHPA), as amended.

16 U.S.C. 470aa–470mm. Archaeological Resources Protection Act of 1979, as amended.

25 U.S.C. 3001–3013. Native American Graves Protection and Repatriation Act (NAGPRA), as amended.

42 U.S.C. 4321–4370f. National Environmental Policy Act (NEPA) of 1969, as amended.

43 U.S.C. 1701–1782. Federal Land Policy and Management Act of 1976, as amended.

ASM (ASM Affiliates Inc.) 2011. *Final Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland National Forest Transmission and Distribution Line*

Increased Fire Safety Project in Support of the Proponent's Environmental Assessment. Confidential. April 2011.

- Bean, L.J., and F.C. Shipek. 1978. "Luiseño." In *Handbook of North American Indians*, Vol. 8, *California*, edited by Robert F. Heizer 550–563. Washington, D.C.: Smithsonian Institution.
- BLM (Bureau of Land Management). 1997. "Programmatic Agreement Among the BLM, Advisory Council on Historic Preservation, and the National Conference State Historic Preservation officers Regarding the Manner in Which BLM Will Meet its Responsibilities Under the National Historic Preservation Act." Accessed online February 2014. http://www.achp.gov/blm_agreement.pdf.
- BLM. 2007. Instruction Memorandum No. 2008-009: Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands." October 15, 2007.
- County of San Diego. 2007a. *County of San Diego Guidelines for Determining Significance – Cultural Resources: Archaeological and Historic Resources*. Land Use and Environment Group, Department of Land Use and Planning, Department of Public Works. December 5, 2007.
- County of San Diego. 2007b. *County of San Diego Guidelines for Determining Significance – Paleontological Resources*. Land Use and Environment Group, Department of Land Use and Planning, Department of Public Works. March 19, 2007.
- County of San Diego. 2007c. Resource Protection Ordinance. Chapter 6 in San Diego County Code, Title 8 Zoning and Land Use Regulations, Division 6, Miscellaneous Land Use Regulations.
- County of San Diego. 2011. *San Diego County General Plan Update Final Environmental Impact Report*. EIR No. 02-ZA-001. SCH No. 2002111067. August 2011. http://www.sdcounty.ca.gov/pds/gpupdate/docs/BOS_Aug2011/EIR/FEIR_0.00_Title.TOC_2011.pdf.
- Hale, M. 2009. "San Diego and Santa Barbara: Socioeconomic Divergence in Southern California." PhD dissertation; University of California, Davis.
- Hector, S.M. 1984. "Late Prehistoric Hunter-Gatherer Activities in Southern San Diego County." PhD dissertation; University of California, Los Angeles.
- Luomala, K. 1978. "Tipai and Ipai." In *California*, edited by Robert F. Heizer, 592–609. *Handbook of the North American Indians*, Vol. 8, William C. Sturtevant, general editor. Washington, D.C.: Smithsonian Institution.

-
- Meighan, C.W. 1959. "California Cultures and the Concept of an Archaic Stage." *American Antiquity* 24:289–305.
- Newland, J. 1995. *Historic Resources Survey and Evaluation Report: Administrative Buildings. Prepared for the Cleveland National Forest, USDA-Forest Service, Pacific Southwest Region*. Unpublished report on file at the Heritage Program archive, Supervisor's Office, Cleveland National Forest, San Diego.
- Parker, P.L. and T.F. King. 1998. "Guidelines for Evaluating and Documenting Traditional Cultural Properties." *National Register Bulletin* 38. U.S. Department of Interior, National Park Service. Last revised 1998.
- Rogers, M.J. 1929. "The Stone Art of the San Dieguito Plateau." *American Anthropologist* 31:454–467.
- SDG&E (San Diego Gas & Electric). 2012. *Proponent's Environmental Assessment for the TL6931 Fire Hardening /Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.
- SDG&E. 2013. *Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California, Revised Plan of Development*. Prepared by Insignia Environmental. Encinitas, California: Insignia Environmental. April 2013. [http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20\(04-19-13S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20(04-19-13S).pdf).
- SDNHM (San Diego Natural History Museum). 2012. *Paleontological Resources in the Cleveland National Forest – San Diego Gas and Electric Company Transmission and Distribution Line Electric Safety and Reliability Plan Project*. SDNHM, Department of PaleoServices. March 15, 2012.
- Shipek, F.C. 1985. "Kuuchamaa: The Kumeyaay Sacred Mountain." *Journal of California and Great Basin Anthropology* 7(1):67–74.
- True, D.L. 1966. "Archaeological Differentiation of Shoshonean and Yuman Speaking Groups in Southern California." Unpublished PhD dissertation; University of California, Los Angeles.
- True, D.L. 1980. "The Pauma Complex in Northern San Diego County: 1978." *Journal of New World Archaeology* 3(4):1–39.
- USDA (U.S. Department of Agriculture). 2005a. *Land Management Plan, Part 1 Southern California National Forests Vision*. R5-MB-075. USDA, U.S. Forest Service. September 2005.

USDA. 2005b. *Land Management Plan, Part 2 Cleveland National Forest Strategy*. R5-MB-077. USDA, U.S. Forest Service. September 2005.

USDA. 2005c. *Land Management Plan, Part 3 Design Criteria for the Southern California National Forests*. R5-MB-080. USDA, U.S. Forest Service. September 2005.

U.S. Department of The Interior. 1997. "The Secretary of the Interior's Standards For Rehabilitation And Guidelines For Rehabilitating Historic Buildings." A.E. Grimmer and K.D. Weeks, Project Directors. Washington D.C.: U.S. Department off the Interior, National Park Service, Heritage Preservation Services.



INTENTIONALLY LEFT BLANK

D.6 Greenhouse Gases

This section addresses potential climate change impacts resulting from construction and operation of the proposed Power Line Replacement Projects along with the operation and maintenance activities proposed for authorization under the MSUP. Section D.6.1 provides a description of the existing setting/affected environment, and the applicable regulations are introduced in Section D.6.2. An analysis of the environmental effects of SDG&E's proposed project and impacts and discussion of mitigation are provided in Section D.6.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.6.4, and Section D.6.5 discusses the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are discussed in Section D.6.6. Section D.6.7 discusses the No Action Alternative and Section D.6.8 describes the No Project Alternative. Section D.6.9 provides mitigation monitoring, compliance, and reporting information; Section D.6.10 addresses residual effects of the project; and Section D.6.11 list the references cited in this section.

D.6.1 Environmental Setting/Affected Environment

This section provides a description of existing conditions, including a description of the greenhouse effect, effects of climate change globally and in California, and a summary of greenhouse gas (GHG) emissions in the United States and California.

Methodology and Assumptions

Baseline information reviewed for this section includes SDG&E's Plan of Development (POD) for the Cleveland National Forest (CNF) Power Line Replacement Projects (SDG&E 2013), . It should be noted that the existing electric facilities (power lines, access roads, and other facilities) to be covered under the proposed MSUP are routinely maintained and repaired. The GHG emissions associated with these past actions are part of the baseline for the analysis of SDG&E's proposed project and alternatives.

D.6.1.1 General Overview

The Greenhouse Gas Effect and Greenhouse Gases

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer).

Gases that trap heat in the atmosphere are often called "greenhouse gases" (GHGs). The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this

long-wave radiation and emit it into space and toward the Earth. This “trapping” of the long-wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. Principal GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), and water vapor (H₂O). Some GHGs, such as CO₂, CH₄, and N₂O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely byproducts of fossil fuel combustion, whereas CH₄ results mostly from off-gassing associated with agricultural practices and landfills. Man-made GHGs, which have a much greater heat-absorption potential than CO₂, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃), which are associated with certain industrial products and processes (CAT 2006).

The greenhouse effect is a natural process that contributes to regulating the earth’s temperature. Without it, the temperature of the Earth would be about 0°Fahrenheit (°F) (-18°Celsius (°C)) instead of its present 57°F (14°C). Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect (National Climatic Data Center 2009).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its “global warming potential” (GWP). GWP varies between GHGs; for example, the GWP of CH₄ is 21, and the GWP of N₂O is 310. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalent” (CO₂E).¹

Contributions to Greenhouse Gas Emissions

In 2011, the United States produced 6,702 million metric tons (MMT) of CO₂E (EPA 2013a). The primary GHG emitted by human activities in the United States was CO₂, representing approximately 84% of total GHG emissions. The largest source of CO₂, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 94% of the CO₂ emissions.

¹ The CO₂ equivalent for a gas is derived by multiplying the mass of the gas by the associated GWP, such that MTCO₂E = (metric tons of a GHG) x (GWP of the GHG). For example, the GWP for CH₄ is 21. This means that emissions of 1 metric ton of methane are equivalent to emissions of 21 metric tons of CO₂.

According to the 2010 GHG inventory data compiled by the California Air Resources Board (CARB) for the California Greenhouse Gas Inventory for 2000–2010, California emitted 452 MMT CO₂E of GHGs, including emissions resulting from out-of-state electrical generation (CARB 2013). The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California’s GHG emissions and their relative contributions in 2010 are presented in Table D.6-1, GHG Sources in California.

**Table D.6-1
GHG Sources in California**

Source Category	Annual GHG Emissions (MMT CO ₂ E)	% of Total
Agriculture	32.45	7.19%
Commercial and residential	43.89	9.72%
Electricity generation ^a	93.30	20.66%
Forestry (excluding sinks)	0.19	0.04%
Industrial uses	85.96	19.03%
Recycling and waste	6.98	1.55%
Transportation	173.18	38.35%
High-GWP substances	15.66	3.47%
Totals	451.60	100.00%

Source: CARB 2013.

Note:^a Includes emissions associated with imported electricity, which account for 43.59 MMT CO₂E annually.

The GHG inventory for San Diego County is discussed in Section D.6.2.3, County of San Diego Climate Action Plan.

Potential Effects of Human Activity on Climate Change

According to CARB, some of the potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high O₃ days, more large forest fires, and more drought years (CARB 2006). Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists’ understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available on regional and local impacts.

The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2°C per decade, determined from meteorological measurements worldwide

between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming would occur, which would induce further changes in the global climate system during the current century. Changes to the global climate system and ecosystems and to California would include, but would not be limited to:

- The loss of sea ice and mountain snowpack resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007)
- A rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets (IPCC 2007)
- Changes in weather that includes widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007)
- A decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 70% to as much as 90% over the next 100 years (CAT 2006)
- An increase in the number of days conducive to O₃ formation by 25% to 85% (depending on the future temperature scenario) in high O₃ areas of Los Angeles and the San Joaquin Valley by the end of the 21st century (CAT 2006)
- High potential for erosion of California's coastlines and sea water intrusion into the Delta and levee systems due to the rise in sea level (CAT 2006).

D.6.2 Applicable Regulations, Plans, and Standards

D.6.2.1 Federal Regulations

Massachusetts v. EPA. On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the U.S. Environmental Protection Agency (EPA) Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the “endangerment finding.”
- The Administrator further found the combined emissions of GHGs—CO₂, CH₄, N₂O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air

pollution that endangers public health and welfare. This is referred to as the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act. On December 19, 2007, President Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022
2. Set a target of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020 and directs National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

EPA and NHTSA Joint Final Rule for Vehicle Standards. On April 1, 2010, the EPA and NHTSA announced a joint final rule to establish a national program consisting of new standards for light-duty vehicles model years 2012 through 2016. The joint rule is intended to reduce GHG emissions and improve fuel economy. The EPA is finalizing the first-ever national GHG emissions standards under the Clean Air Act, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act (EPA 2010). This final rule follows the EPA and Department of Transportation’s joint proposal on September 15, 2009, and is the result of President Obama’s May 2009 announcement of a national program to reduce GHGs and improve fuel economy (EPA 2013b). The final rule became effective on July 6, 2010 (EPA and NHTSA 2010).

The EPA GHG standards require new passenger cars, light-duty trucks, and medium-duty passenger vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile in model year 2016, equivalent to 35.5 mpg if the automotive industry were to meet this CO₂ level through fuel economy improvements alone. The CAFE standards for passenger cars and light trucks will be phased in between 2012 and 2016, with the final standards equivalent to 37.8 mpg for passenger cars and 28.8 mpg for light trucks, resulting in an estimated combined average of 34.1 mpg. Together, these standards will cut GHG emissions by an estimated 960

million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program. The rules will simultaneously reduce GHG emissions, improve energy security, increase fuel savings, and provide clarity and predictability for manufacturers (EPA 2011).

In 2011, the EPA and NHTSA approved the first-ever program to reduce GHG emissions and increase fuel efficiency for medium- and heavy-duty vehicles (EPA and NHTSA 2011). Effective November 14, 2011, the CO₂ emissions and fuel efficiency standards of this regulation apply to model year 2014 to 2018 combination tractors (i.e., semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles including transit and school buses. This regulation covers vehicles with a gross vehicle weight rating of 8,500 pounds or greater; medium-duty passenger vehicles are covered by the previous regulation for passenger cars and light-duty trucks. In addition, the EPA has adopted standards to control HFC leakage from air conditioning systems in combination tractors and heavy-duty pickup trucks and vans as well as CH₄ and N₂O standards for heavy-duty engines, pickup trucks, and vans. Phased in through model year 2017, the CO₂ and fuel consumption standards for combination trailers depend on the weight class, cab type, and roof length. The CO₂ standards are expressed in grams CO₂ per ton-mile, while the fuel consumption standards are expressed in gallons per 1,000 ton-miles, each accounting for the carrying capacity of the tractor and trailer. These standards represent an overall fuel consumption and CO₂ emissions reduction of up to 23% when compared to a baseline 2010 model year. The CO₂ and fuel consumption standards for heavy-duty pickup trucks and vans are applied as corporate average values and are phased in with increasing stringency from model year 2014 to 2018. The final EPA standards for heavy-duty pickup trucks and vans for 2018 (including a separate standard to control air conditioning system leakage) represent a GHG reduction of 17% for diesel vehicles and 12% for gasoline vehicles compared to a 2010 baseline. Due to the variety of vocational vehicles, many of which involve a body installed on a chassis, the CO₂ and fuel consumption standards are applied to the chassis manufacturers. Like the CO₂ and fuel consumption standards for combination tractors, the standards for vocational vehicles are expressed in grams CO₂ per ton-mile and gallons per 1,000 ton-miles, respectively. Upon final implementation, the EPA standards for vocational vehicles, which apply initially to model years from 2014 through 2016 and then to model year 2017 vehicles, are expected to reduce GHG emissions by 6% to 9% compared to a 2010 baseline.

In August 2012, the EPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (EPA and NHTSA 2012). These standards will reduce motor vehicle GHG emissions to 163 grams of CO₂ per mile, which is equivalent to 54.5 mpg if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025. A portion of these improvements, however, will likely be made through improvements in air conditioning leakage and through use of alternative refrigerants, which would not contribute to fuel economy. The first phase of the CAFE standards, for model year 2017 to 2021, are projected to require, on an average industry fleet-wide basis, a range from

40.3 to 41.0 mpg in model year 2021. The second phase of the CAFE program, for model years 2022 to 2025, are projected to require, on an average industry fleet-wide basis, a range from 48.7 to 49.7 mpg in model year 2025. The second phase of standards have not been finalized due to the statutory requirement that NHTSA set average fuel economy standards not more than five model years at a time. The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel cells vehicles
- Incentives for hybrid technologies for large pickups and for other technologies that achieve high fuel economy levels on large pickups
- Incentives for natural gas vehicles.

Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standards test procedures.

D.6.2.2 State Laws and Regulations

Assembly Bill (AB) 1493. In a response to the transportation sector accounting for more than half of California’s CO₂ emissions, AB 1493 (Pavley) was enacted on July 22, 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

Before these regulations could go into effect, the EPA had to grant California a waiver under the federal Clean Air Act, which ordinarily preempts state regulation of motor vehicle emission standards. The waiver was granted by Lisa Jackson, the EPA Administrator, on June 30, 2009. On March 29, 2010, the CARB Executive Officer approved revisions to the motor vehicle GHG standards to harmonize the state program with the national program for 2012–2016 model years (see “EPA and NHTSA Joint Final Rule for Vehicle Standards” above). The revised regulations became effective on April 1, 2010.

Executive Order S-3-05. In June 2005, Governor Schwarzenegger established California’s GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions

should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80% below 1990 levels by 2050. The California Environmental Protection Agency (CalEPA) Secretary is required to coordinate efforts of various agencies to collectively and efficiently reduce GHGs. The Climate Action Team is responsible for implementing global warming emissions reduction programs. Representatives from several state agencies comprise the Climate Action Team. The Climate Action Team fulfilled its report requirements through the March 2006 Climate Action Team Report to the governor and the legislature (CAT 2006). The 2009 *Climate Action Team Biennial Report* (CAT 2010a), published in April 2010, expands on the policy outlined in the 2006 assessment. The 2009 report provides new information and scientific findings regarding the development of new climate and sea level projections using new information and tools that have recently become available and evaluates climate change within the context of broader social changes, such as land use changes and demographics. The 2009 report also identifies the need for additional research in several different aspects that affect climate change in order to support effective climate change strategies. The aspects of climate change determined to require future research include vehicle and fuel technologies, land use and smart growth, electricity and natural gas, energy efficiency, renewable energy and reduced carbon energy sources, low GHG technologies for other sectors, carbon sequestration, terrestrial sequestration, geologic sequestration, economic impacts and considerations, social science, and environmental justice.

Subsequently, the 2010 *Climate Action Team Report to Governor Schwarzenegger and the California Legislature* (CAT 2010b) reviews past Climate Action Milestones, including voluntary reporting programs, GHG standards for passenger vehicles, the Low Carbon Fuel Standard (LCFS), a statewide renewable energy standard, and the cap-and-trade program. Additionally, the 2010 report includes a cataloguing of recent research and ongoing projects; mitigation and adaptation strategies identified by sector (e.g., agriculture, biodiversity, electricity and natural gas); actions that can be taken at the regional, national, and international levels to mitigate the adverse effects of climate change; and today's outlook on future conditions. The 2010 report also focuses on case studies involving collaborative efforts among multiple agencies on research projects related to climate change and policy development.

AB 32. In furtherance of the goals established in Executive Order S-3-05, the legislature enacted AB 32 (Núñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. The GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020.

CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions. This program will be used to monitor and enforce

compliance with the established standards. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

The first action under AB 32 resulted in the adoption of a report listing early-action GHG emissions reduction measures on June 21, 2007. The early actions include three specific GHG control rules. On October 25, 2007, CARB approved an additional six early-action GHG reduction measures under AB 32. The three original early-action regulations meeting the narrow legal definition of “discrete early action GHG reduction measures” include:

1. A low carbon fuel standard to reduce the “carbon intensity” of California fuels
2. Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of “do-it-yourself” automotive refrigerants
3. Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The additional six early-action regulations, which were also considered “discrete early-action GHG reduction measures,” consist of:

1. Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology
2. Reduction of auxiliary engine emissions of docked ships by requiring port electrification
3. Reduction of PFCs from the semiconductor industry
4. Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products)
5. Requirements that all tune-up, smog check, and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency
6. Restriction on the use of SF₆ from non-electricity sectors if viable alternatives are available.

As required under AB 32, on December 6, 2007, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 MMT CO₂E. In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of GHGs for large facilities that account for 94% of GHG emissions from industrial and commercial stationary sources in California. About 800 separate

sources fall under the new reporting rules and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and other industrial sources that emit CO₂ in excess of specified thresholds.

On December 11, 2008, CARB approved the Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan; CARB 2008) to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

The key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewables energy mix of 33%
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

SB 1368. In September 2006, Governor Schwarzenegger signed SB 1368, which requires the California Energy Commission (CEC) to develop and adopt regulations for GHG emissions performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low or lower than new combined-cycle natural gas plants, by requiring imported electricity to meet GHG performance standards in California, and by requiring that the standards be developed and adopted in a public process.

SB X1 2. On April 12, 2011, Governor Jerry Brown signed SB X1 2 in the First Extraordinary Session, which would expand the Renewable Portfolio Standard (RPS) by establishing a goal of 20% of the total electricity sold to retail customers in California per year, by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current and that meets other specified requirements with respect to its location. In addition to the retail sellers covered by SB 107, SB X1 2 adds local publicly owned electric utilities to the RPS. By January 1, 2012, the CPUC is required to establish the quantity of electricity products from eligible renewable energy resources to be procured by retail sellers in order to achieve targets of 20% by December 31, 2013; 25% by December 31, 2016; and 33% by December 31, 2020. The statute also requires that the governing boards for local publicly owned electric utilities establish the same targets, and the governing boards would be responsible for ensuring compliance with these targets. The CPUC will be responsible for enforcement of the RPS for retail sellers, while the CEC and CARB will enforce the requirements for local publicly owned electric utilities.

D.6.2.3 Regional Policies, Plans, and Regulations

County of San Diego Climate Action Plan

The County of San Diego Climate Action Plan (CAP), adopted June 2012, documents the County's long-term strategy for addressing the adverse effects of climate change (County of San Diego 2012). The CAP outlines various mechanisms and measures for reducing GHG emissions at the County level, including those specific to water conservation, waste reduction, land use, and adaptation strategies to fulfill the obligations delineated in AB 32. The CAP includes County goals previously established under the County General Plan and County Strategic Energy Plan, and establishes reduction targets at 15% below 2005 levels by 2020 and 49% below 2005 levels by 2035. The CAP builds on long-standing efforts, including state initiatives, County staff recommendations, and regional planning strategies to enhance environmental sustainability and carbon neutrality, particularly unincorporated segments of the County. As shown in Table D.6-2, GHG Sources in San Diego County, sources in unincorporated San Diego County emitted an estimated 4.51 MMT CO₂E of GHGs in 2005. Similar to the statewide emissions inventory, the transportation sector was the largest contributor to GHG emissions in 2005 accounting for approximately 59% of total GHG emissions (more than 2.6 MMT CO₂E). Emission sources and emission estimates by sector are shown in Table D.6-2.

**Table D.6-2
GHG Sources in San Diego County**

Source Category	Annual GHG Emissions (MMT CO ₂ E)	% of Total
Transportation	2.64	59%
Agriculture	0.19	4%
Solid Waste	0.14	3%
Wastewater	0.05	1%
Potable Water	0.24	5%
Other	0.13	3%
Energy	1.12	25%
Totals	4.51	100.00%

Source: County of San Diego 2012.

D.6.3 Environmental Effects

D.6.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

There are no adopted guidelines for determining the significance of GHG emissions under NEPA. Further, neither the State of California nor the San Diego Air Pollution Control District (SDAPCD) has established CEQA significance thresholds for GHG emissions. The following significance thresholds are based on the CEQA Checklist included in Appendix G of the CEQA Guidelines. The CEQA criteria and guidelines are used as indicators of adverse effect under NEPA. Under CEQA, GHG impacts would be considered significant if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The Governor’s Office of Planning and Research (OPR) advises, “Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact” (OPR 2008). Furthermore, the OPR advisory indicates, “In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a ‘significant impact,’ individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice” (OPR 2008).

The South Coast Air Quality Management District (SCAQMD) adopted an interim significance threshold of 10,000 metric tons (MT) CO₂E per year for industrial projects in December 2008.

The SCAQMD threshold was adopted after rigorous public vetting. The same threshold value as that adopted by the SCAQMD is also reflected as the “stationary source” threshold in the County of San Diego CAP adopted June 2012 (County of San Diego 2012).² Subsequently, the County of San Diego, Land Use & Environment Group finalized California Environmental Quality Act (CEQA) Guidelines for Determining Significance (Guidelines) and Report Format and Content Requirements (Report Formats) for Climate Change, effective November 9, 2013. These guidelines include a threshold of 10,000 MT CO₂E per year for stationary sources (e.g., industrial facilities); however, it is intended to apply primarily to the operational GHG emissions from industrial facilities that include stationary sources, such as boilers, stationary engines, and power generation facilities. Accordingly, this threshold would not be appropriate for evaluating the project’s GHG emissions, which are primarily associated with construction. In the absence of a specific GHG threshold that would apply to SDG&E’s proposed project the CPUC will apply the significance threshold of 10,000 MT CO₂E/year, including all construction and operational emissions, to assess the impacts of the significance of the proposed project’s GHG emissions with respect to CEQA. In the absence of a rulemaking to establish a GHG emission threshold of significance to be applied uniformly throughout the state, the CPUC is assessing the impacts of GHG emissions on a case-by-case basis. In areas of the state in which the local air pollution control district (APCD) or air quality management district (AQMD) has not adopted a threshold of significance, the CPUC will apply a threshold that has been adopted by CARB or another APCD or AQMD. In this instance, the CPUC is using the SCAQMD threshold because neither CARB nor the SDAPCD has yet to adopt a threshold.

D.6.3.2 Applicant Proposed Measures

No applicant proposed measures (APMs) have been identified for SDG&E’s proposed project related to GHGs.

D.6.3.3 Direct and Indirect Effects

Impact GHG-1 Result in a net increase of construction greenhouse gas emissions

GHG emissions associated with the construction phase of SDG&E’s proposed project would occur as a result of burning the fuel required to operate the on-site construction equipment,

² The County of San Diego CAP was approved and adopted on June 20, 2012; however, on April 29, 2013, the Superior Court deemed the CAP inadequate and ruled the document was improperly adopted. The updated *County of San Diego Guidelines for Determining Significance – Climate Change*, which serves as the supporting documentation for the implementation of the CAP, have been approved, effective November 7, 2013. As such, thresholds and measures described in the CAP as applicable to the project analysis are provided for informational purposes only.

mobilize work crews to and from the alignment sites, and deliver steel poles and other materials. The years 2013, 2014, 2015, 2016, and 2017 were analyzed for the purpose of construction emissions (SDG&E 2012a).

APM-AIR-01, reduced idling time for construction equipment, would reduce construction-related GHG emissions. This reduction has been accounted for in Table D.6-3.

Table D.6-3 shows the estimated construction-related GHG emissions associated with SDG&E’s proposed project.

**Table D.6-3
Total Estimated Construction Greenhouse Gas Emissions of SDG&E’s Proposed Project**

Pollutant	Annual Emissions					Total
	2013	2014	2015	2016	2017	
Unmitigated CO ₂ Equivalent (CO ₂ E)	4,924	9,017	8,116	4,604	1,322	27,984
Reduction from APM-AIR-01	492	902	812	460	132	2,798
Mitigated CO ₂ E	4,432	8,116	7,305	4,143	1,189	25,186

Source: SDG&E 2012a.

As discussed previously, the threshold of 10,000 MT CO₂E/year is being used to assess the impact of the project’s GHG emissions. The highest total proposed action’s construction emissions in any one year would equal approximately 9,017 MT CO₂E/year (unmitigated) or 8,116 MT CO₂E/year following implementation of APM-AIR-01. The maximum annual construction-related GHG emissions would be below the GHG threshold of 10,000 MT CO₂/year. Therefore, the impact of the project’s GHG emissions during construction would not be considered adverse under NEPA and would be less than significant (Class III) under CEQA.

Impact GHG-2 Result in a net increase of operational greenhouse gas emissions

Operations and maintenance of SDG&E’s proposed project including all SDG&E facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks, similar to those currently administered by SDG&E. These activities would not increase in duration, intensity, or frequency with implementation of SDG&E’s proposed project compared to existing conditions due to fewer poles required for the proposed alignments and increased reliability in the transmission facilities, which would necessitate fewer maintenance hours by SDG&E staff. GHG emissions resulting from operation and maintenance would not exceed the significance thresholds; therefore, they would not be considered adverse under NEPA, and would be less than significant under CEQA (Class III).

Impact GHG-3 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As discussed in Section D.6.2, the Scoping Plan approved by CARB on December 12, 2008, provides a framework for actions to reduce California’s GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Moreover, the Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that “[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan” (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others. While state regulatory measures will ultimately reduce GHG emissions associated with the project through their effect on these sources, no statewide plan, policy, or regulation would be specifically applicable to reductions in GHG emissions from the project.

As discussed in Section D.6.2, the County has adopted a CAP (County of San Diego 2012). As part of the CAP, the County developed construction screening criteria for projects that involve GHG emissions produced only as a result of construction. Construction-only projects that meet the construction screening criteria do not need to implement a CAP measure (County of San Diego 2012). As indicated in Impacts GHG-2 and GHG-3, the project would not increase operational GHG emissions relative to existing conditions, but it would result in construction-related GHG emissions. The construction screening criteria applicable to the project include the following:

- Grading and clearing of land involving no more than 1,285 acres of land per year with no soil hauling and no other aspect of construction or site preparation.
- Grading and clearing of land involving no more than 100 acres per year, assuming up to 3,100 cubic yards per day of soil hauling.
- Based on an average truck size of 20 cubic yards and an average hauling distance of 30 miles round trip, a project that would haul less than 3,300 cubic yards per day, not including emissions from any other activities, including off-road construction equipment.
- Construction project that would use a total horsepower in all equipment of no more than 1,984 per day, not including any soil hauling; or a construction project that includes up

to 3,100 cubic yards of soil hauling per day and has a total equipment horsepower of no more than 742 per day. These daily horsepower limits are based on a project that would take approximately one year and would involve 262 working days in this year. Projects with a shorter duration may increase these horsepower limits proportionally (County of San Diego 2013).

SDG&E's proposed project would not involve construction activities that would meet any four of the screening criteria described in the CAP. Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA, and would be less than significant under CEQA (Class III).

D.6.4 Forest Service Proposed Actions

Environmental Setting/Affected Environment

Sections D.6.1 and D.6.2 describe the existing climate change setting associated with SDG&E's proposed project which applies to each of the Forest Service proposed action alternatives.

D.6.4.1 TL626 Alternative Routes

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Option 4: Overhead Relocation along Boulder Creek Road

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts GHG-1 and GHG-2: Construction activities would temporarily increase GHG emissions due to the increased heavy equipment use and greater disturbance area required to relocate TL626 compared to reconstruction in place as proposed. Operational emissions would be the same as those discussed for the project in Section D.6.3.3. Similar to SDG&E's proposed project, GHG emissions from construction (amortized over 30 years), plus those from operations and maintenance activities, would not be adverse under NEPA and under CEQA are expected to result in a less-than-significant impact (Class III).

Impact GHG-3: Impact GHG-3 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. This alternative would not involve construction activities that would meet any of the four screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA, and would be less than significant under CEQA (Class III).

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impacts GHG-1 and GHG-2: Impacts GHG-1 and GHG-2 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. Construction activities would differ from SDG&E's proposed project, as open trenching operations would be required to underground a portion of TL626 in Boulder Creek Road, as opposed to reconstruction of the line overhead in place as proposed. This additional trenching activity would increase construction-generated GHG emissions when compared to SDG&E's proposed project. Operational emissions would be the same as those discussed for the project in Section D.6.3.3. Similar to SDG&E's proposed project, GHG emissions from construction (amortized over 30 years), plus those from operations and maintenance activities, would not be adverse under NEPA and under CEQA are expected to result in a less-than-significant impact (Class III).

Impact GHG-3: Although additional trenching activity and soil disturbance under this alternative would slightly increase construction-generated GHG emissions when compared to SDG&E's proposed project, this alternative would not involve construction activities that would meet any of the four screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA, and would be less than significant under CEQA (Class III).

D.6.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Environmental Effects

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Impacts GHG-1 and GHG-2: Impacts would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. As such, construction activities, worker crews, construction schedule, and operational activities would essentially be the same as the proposed replacement of C157 as well as the project as a whole. Identified impacts would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

Impact GHG-3: Impact GHG-3 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. This alternative would not involve construction activities that would meet any of the four screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or

exceed the CAP screening criteria, impacts would not be considered adverse, and would be less than significant under CEQA (Class III).

D.6.4.3 C440 Mount Laguna Underground Alternative

Environmental Effects

Impacts GHG-1 and GHG-2: Impacts GHG-1 and GHG-2 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. Construction activities would differ from SDG&E's proposed project, as open trenching operations would be required to underground C440 in paved roadways, as opposed to reconstruction of C440 in place as proposed. This additional trenching activity and associated emissions would increase construction-generated GHG emissions when compared to SDG&E's proposed project. Operational emissions would be the same as those discussed for the project in Section D.6.3.3. Similar to SDG&E's proposed project, GHG emissions from construction (amortized over 30 years), plus those from operations and maintenance activities, would not be adverse under NEPA and under CEQA are expected to result in a less-than-significant impact (Class III).

Impact GHG-3: Although additional trenching activity under this alternative would slightly increase construction-generated GHG emissions when compared to SDG&E's proposed project, this alternative would not involve construction activities that would meet any four of the screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA and would be less than significant under CEQA (Class III).

D.6.5 BIA Proposed Action

Environmental Effects

Impacts GHG-1 and GHG-2: Impacts GHG-1 and GHG-2 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. Construction activities would differ marginally from SDG&E's proposed project, as open trenching operations would be required to underground a portion of TL682 on Tribal lands, as opposed to constructing the line overhead on transmission line poles. This additional trenching activity would increase construction-generated GHG emissions when compared to SDG&E's proposed project, resulting primarily from trenching equipment emissions. Operational emissions would be the same as those discussed for the project in Section D.6.3.3. Similar to SDG&E's proposed project, GHG emissions from construction (amortized over 30 years), plus those from operations and

maintenance activities, would not be adverse under NEPA and under CEQA are expected to result in a less-than-significant impact (Class III).

Impact GHG-3: Although additional trenching activity and soil disturbance under this alternative would slightly increase construction-generated GHG emissions when compared to SDG&E's proposed project, this alternative would not involve construction activities that would meet any of the four screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA, and would be less than significant under CEQA (Class III).

D.6.6 Additional Alternatives

Environmental Setting/Affected Environment

Sections D.6.1 and D.6.2 describe the existing setting for climate change associated with SDG&E's proposed project which applies to the following additional alternatives.

D.6.6.1 Partial Removal of Overland Access Roads

Environmental Effects

Impacts GHG-1 and GHG-2: Impacts would reflect similar impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. Although removal of segments of access roads as proposed under this alternative could marginally increase the use of helicopters for overhead power line installation and maintenance, this alternative would be similar in construction activities, worker crews, construction schedule, and operational activities as SDG&E's proposed project and the project as a whole. Similar to SDG&E's proposed project, GHG emissions from construction (amortized over 30 years), plus those from operations and maintenance activities, would not be adverse under NEPA and under CEQA are expected to result in a less-than-significant impact (Class III).

Impact GHG-3: Impact GHG-3 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. This alternative would not involve construction activities that would meet any of the four screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA and would be less than significant under CEQA (Class III).

D.6.6.2 Removal of TL626 from Service

Environmental Effects

Impacts GHG-1 and GHG-2: Impacts would reflect similar impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project as removed facilities would be replaced with facilities requiring a similar disturbance footprint within existing electric utility ROWs. Therefore, this alternative would be similar in construction activities, worker crews, construction schedule, and operational activities as SDG&E's proposed project (SDG&E 2012b, 2014). Similar to SDG&E's proposed project, GHG emissions from construction (amortized over 30 years), plus those from operations and maintenance activities, would not be adverse under NEPA and under CEQA are expected to result in a less-than-significant impact (Class III).

Impact GHG-3: Impact GHG-3 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. This alternative would not involve construction activities that would meet any four of the screening criteria described in the CAP (see Section D.6.3.3). Because the project would not involve construction activities that would meet or exceed the CAP screening criteria, impacts would not be considered adverse under NEPA and would be less than significant under CEQA (Class III).

D.6.7 No Action Alternative

Environmental Effects

Impact GHG-1 through GHG-3: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.3 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional transmission lines in conformance with the California ISO requirements and/or alternatives means of delivering electrical service elsewhere would result in similar construction GHG emissions as described in Section D.6.3.3, and therefore, overall impacts to climate change would not be reduced.

D.6.8 No Project Alternative

Environmental Effects

Impacts GHG-1 through GHG-3: Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain; therefore, none of the climate change impacts described in Section D.6.3 would

occur. Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions, and therefore no climate change impacts over existing conditions would occur.

D.6.9 Mitigation Monitoring, Compliance, and Reporting

As described in Sections D.6.3 and D.6.4, no significant climate change impacts were identified; therefore, mitigation measures are not necessary. Accordingly, no mitigation monitoring, compliance, or reporting is necessary for impacts to climate change.

D.6.10 Residual Unavoidable Effects

Since no adverse or significant impacts were identified in Section D.6.3.3 related to climate change, no residual impacts would occur for SDG&E's proposed project or alternatives.

D.6.11 References

- CARB (California Air Resources Board). 2006. "AB 32: The California Global Warming Solutions Act of 2006. Public Workshop to Discuss Establishing the 1990 Emissions Level and the California 2020 Limit and Developing Regulations to Require Reporting of Greenhouse Gas Emissions." PowerPoint slides. December 1, 2006. http://www.arb.ca.gov/cc/inventory/meet/2006_12_01_presentation_intro.pdf.
- CARB. 2008. *Climate Change Proposed Scoping Plan: A Framework for Change*. December 12, 2008. <http://www.arb.ca.gov/cc/scopingplan/document/psp.pdf>.
- CARB. 2013. "California Greenhouse Gas Inventory for 2000–2011 – by Category as Defined in the 2008 Scoping Plan." August 1, 2013. http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-11_2013-08-01.pdf.
- CAT (California Climate Action Team). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. California Environmental Protection Agency, California Climate Action Team. March 2006. http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF.
- CAT. 2010a. *Climate Action Team Biennial Report*. California Environmental Protection Agency, California Climate Action Team. April 2010. <http://www.energy.ca.gov/2010publications/CAT-1000-2010-004/CAT-1000-2010-004.PDF>.

- CAT. 2010b. *Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. California Environmental Protection Agency, California Climate Action Team. December 2010. <http://www.energy.ca.gov/2010publications/CAT-1000-2010-005/CAT-1000-2010-005.PDF>.
- CNRA (California Natural Resources Agency). 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. December 2009. http://www.ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.
- County of San Diego. 2012. *Climate Action Plan*. Adopted June 2012. <http://www.sdcounty.ca.gov/pds/advance/climateactionplan.html>.
- County of San Diego. 2013. *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Climate Change*. Land Use and Environment Group, Planning & Development Services, Department of Public Works. November 7, 2013. http://www.sdcounty.ca.gov/pds/advance/Guidelines_for_Determining_Significance_Climate_Change.pdf.
- EPA (U.S. Environmental Protection Agency). 2010. *EPA and NHTSA Finalize Historic National Program to Reduce Greenhouse Gases and Improve Fuel Economy for Cars and Trucks*. Regulatory Announcement. Office of Transportation and Air Quality. EPA-420-F-10-014. April. <http://www.epa.gov/oms/climate/regulations/420f10014.pdf>.
- EPA. 2013a. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2011*. Last updated November 8, 2013. <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>.
- EPA. 2013b. *Final Rulemaking: Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards*. Regulations and Standards–Vehicles and Engines. Last updated May 14, 2013. <http://www.epa.gov/otaq/climate/regulations.htm>.
- EPA and NHTSA (U.S. Environmental Protection Agency and National Highway Traffic Safety Administration). 2010. *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule*. EPA–HQ–OAR–2009–0472. NHTSA-2009-0059. <http://www.epa.gov/oms/climate/regulations/lDV-ghg-final-rule.pdf>.
- EPA and NHTSA. 2011. *Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles*. EPA–HQ–OAR–2010–0162; NHTSA–2010–0079.

EPA and NHTSA. 2012. *2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards*. EPA–HQ–OAR–2010–0799, NHTSA-2010-0131.

IPCC (Intergovernmental Panel on Climate Change). 2007. “Summary for Policy Makers.” In *Climate Change 2007: The Physical Science Basis*, eds. S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller, 1–18. A report of Working Group I of the Intergovernmental Panel on Climate Change. New York, New York: Cambridge University Press. http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_PlenaryApproved.pdf.

National Climatic Data Center. 2009. “Global Warming.” National Climatic Data Center, National Oceanic and Atmospheric Administration. <http://lwf.ncdc.noaa.gov/oa/climate/globalwarming.html>.

OPR (California Governor’s Office of Planning and Research). 2008. *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*. Technical Advisory. Sacramento, California: OPR. June 19, 2008. <http://opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>.

SDG&E. 2012a. SDG&E 10/30/12 Response A. 12-10-009 Cleveland National Forest Power Line Replacement Projects PTC ED Data Request 01 Dated October 30, 2012.

SDG&E. 2012b. *Proponent’s Environmental Assessment for the TL6931 Fire Hardening/Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.

SDG&E. 2013. *Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California, Revised Plan of Development*. Prepared by Insignia Environmental. Encinitas, California: Insignia Environmental. April 2013. <http://www.cpuc.ca.gov/environment/info/dudek/CNF/DR3Response.htm>.

SDG&E. 2014. “Response A. 12-10-009 Cleveland National Forest Power Line Replacement Projects PTC ED Data Request 6 (Dated March 21, 2014).” April 3, 2014.

INTENTIONALLY LEFT BLANK

D.7 Public Health and Safety

This section addresses potential public health and safety impacts resulting from construction and operation of the proposed power line replacement projects along with the operations and maintenance activities proposed for authorization under the MSUP. Section D.7.1 provides a description of the existing public health setting/affected environment, and the applicable public health laws and regulations are introduced in Section D.7.2. An analysis of impacts/environmental effects SDG&E's proposed project and discussion of mitigation are provided in Section D.7.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.7.4, and Section D.7.5 describes the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are discussed in Section D.7.6. Section D.5.7 discusses the No Action Alternative and Section D.7.8 describes the No Project Alternative. Section D.7.9 provides mitigation monitoring, compliance, and reporting information. Section D.7.10 addresses residual effects of the project, and Section D.7.11 lists the references cited in this section. See Section D.8, Fire and Fuels Management, for a discussion of safety issues related to fire hazards and Section D.15 for a discussion on electromagnetic fields (EMFs).

D.7.1 Environmental Setting/Affected Environment

Methodology and Assumptions

This section identifies known hazardous waste contamination sites within the project alignment as well as other public health and safety-related concerns associated with power lines. Potentially hazardous sites are identified in order to protect worker health and safety and to eliminate or minimize public exposure to hazardous materials during construction and waste-handling activities. Contaminated soil may qualify as hazardous waste, and thus requires handling and disposal according to local, state, and federal regulations.

Information about known hazardous material sites was collected from a review of the *Report on ASTM Phase I Environmental Site Assessment Cleveland National Forest Electric Safety and Reliability Project San Diego County, California* prepared by Haley & Aldrich Inc., San Diego, California, for Insignia Environmental, Palo Alto, California, July 25, 2012 (included in SDG&E Response to Data Request 1, SDG&E 2012a). The Phase I Environmental Site Assessment (ESA) was completed in substantial conformance with the ASTM E 1527-05 Standard. Access to a portion of C442 south of Interstate 8 (I-8) was not provided. However, information was obtained from SDG&E that indicates that this portion of the project alignment has remained as undeveloped ranch land and that no hazardous material releases have occurred along this portion of the alignment.

D.7.1.1 General Overview

Hazardous Materials

Research conducted per the Phase I ESA indicates that one known recognized environmental condition exists along the project alignment as described below. The ASTM E 1527-05 Standard defines a recognized environmental condition as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.”

Impacted Groundwater from the Adjacent Pine Valley Trailer Park

A release of gasoline to soil and groundwater from two underground storage tanks occurred at the Pine Valley Trailer Park, located at 27521 and 27541 Old Highway 80, Guatay, CA. Groundwater was reportedly encountered between 15 and 20 feet below ground surface at this site. Maximum concentrations in groundwater beneath this site during March 2010 are as follows: total petroleum hydrocarbons (TPH) gasoline = 9,500 micrograms per liter (ug/L), TPH diesel = 19,000 ug/L, benzene = 390 ug/L, toluene = 410 ug/L, ethylbenzene = 460 ug/L, xylenes = 1,790 ug/L. High-vacuum dual-phase extraction remediation was conducted at the site between 2004 and 2007, which removed over 10,000 pounds of petroleum hydrocarbons from the site. Based on the existing groundwater data, it appears the concentrations of TPH, benzene, ethylbenzene, toluene, and xylenes are present beneath Old Highway 80 and therefore beneath the proposed project area (between poles Z173105 and Z173109). Records reviewed at DEH indicated that approximately 36 cubic yards of petroleum impacted soil remains south of the former fuel dispenser (Haley & Aldrich 2012, included in SDG&E 2012a).

The location of the Pine Valley Trailer Park is shown on Figure D.7-1 just north of TL629.

Evidence of polychlorinated biphenyls (PCBs) associated with electrical or hydraulic equipment was not observed along the project alignment during the Phase I site reconnaissance. Additionally, SDG&E staff indicated that existing transformers along the distribution lines do not contain PCBs (Haley & Aldrich 2012, as cited in SDG&E 2012a).

Schools

A release of a hazardous material may be considered significant under CEQA if it occurs within a quarter mile of a school. There are six schools located within a quarter mile of the project alignment, as shown on Figure D.7-1:

1. Descanso Elementary, located at 24842 Viejas Boulevard, Descanso, California
2. Pine Valley Elementary, located at 7454 Pine Boulevard, Pine Valley, California
3. Mountain Empire High School, located at 3305 Buckman Springs Road, Pine Valley, California
4. Cottonwood Community Day School, located at 3291 Buckman Springs Road, Pine Valley, California
5. Denver C. Fox Outdoor Education School, 24102 Highway 76, Santa Ysabel, California
6. Camp Barrett, located up Sky Valley Road, with a mailing address of 21077 Lyons Valley Road, Alpine, California.

Airports and Airstrips

Hazards associated with airports can have serious human safety and quality of life impacts. Aviation facilities provide a variety of aviation services to local residents, including civil aviation, government use, business flights, charter flights, flight schools, and helicopter operations. Airport Land Use Compatibility Plans (ALUCPs) are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. Airport safety zones are established for all public airports as part of ALUCPs, and land-use restrictions within safety zones are established to protect people and property on the ground and in the air. Main areas of concern related to airport hazards include over-flight safety, airspace protection, flight patterns, and land-use compatibility.

There are four private airports and four public airports or airstrips within a 15-mile radius of project alignment, as shown on Figure D.7-1.

Reider Ranch Airport, located approximately 0.75 mile south of TL6923 in Potrero, is the closest airport to SDG&E's proposed project. Reider Ranch Airport is privately owned, houses two single engine airplanes, and contains one runway approximately 2,000 feet long (FAA 2014a). The second nearest airport is the On the Rocks Airport, located approximately 1 mile from TL625 in Alpine. This airport is privately owned and houses one single-engine aircraft. The runway is approximately 2,340 feet long and is composed of gravel (FAA 2014b). The Flying T Ranch Airport is a privately owned airport located approximately 5.25 miles west of TL262. The airport is unattended, and no airplanes are currently based there (FAA 2014c). The Rancho

Vallecito Airport is a privately owned airport located on County Highway S2 in Julian, approximately 5.5 miles north of C440. There is one single-engine plane based at this airport (FAA 2014d).

The Agua Caliente Airport is a public airstrip located within Aqua Caliente Springs County Park, north of I-8, on County highway S2, approximately 8.7 miles northeast of C440, the nearest section of the project alignment. In 2012, 4,400 operations occurred at the Agua Caliente Airport. No aircraft are based at the Agua Caliente Airport (County of San Diego 2013a).

Gillespie Field is a public airport located just southwest of the intersection of highways 52 and 67 in El Cajon, approximately 10.6 miles from the nearest section of the project alignment. In 2012, there were 184,512 operations and 689 aircraft based at Gillespie Field (County of San Diego 2013b).

The Jacumba Airport is a public airport located approximately 1 mile east of Jacumba, approximately 12.44 miles from the nearest section of the project alignment. The airport is unattended and unlighted and is mainly used as a glider facility by single-engine aircraft and sailplanes, with activity predominately occurring during weekends in non-summer months. In 2012, 1,826 operations occurred at the Jacumba Airport. Nine aircraft are based at the Jacumba Airport (County of San Diego 2013c).

The Ramona Airport is a public airport that is located approximately 2 miles west of Ramona on Montecito Road, and approximately 14.35 miles from the nearest section of the project alignment. In 2012, there were 114,582 operations and 173 aircraft based at the Ramona Airport (County of San Diego 2013d).

SDG&E Electrical Facilities

Beside fire hazards which are addressed in Section D.8 of this EIR/EIS, other safety hazards associated with SDG&E's existing electric facilities within the study area include possible electrocution and direct physical harm resulting from failure of facilities in the event of an accident, high winds, a ground-shaking event, lighting strike, or other human interaction. While failures of transmission line support structures are extremely rare and are typically the result of anomalous loading conditions, such as tornadoes or ice storms, the existing wood poles are susceptible to fire damage, woodpecker damage, termite damage, and deterioration due to weather conditions. Existing wood poles are natural products with inherent variability in the material strength properties, and are intended to handle winds up to 56 mph (SDG&E 2014). As discussed in Section D.8.1.1, during Santa Ana conditions winds in the project area can be sustained at 40 miles per hour (mph) for hours, with gusts from 70 to 115 mph (Schroeder et al. 1964).

D.7.2 Applicable Regulations, Plans, and Standards

The regulations below are relevant to the topics of hazardous substances, site contamination, and potential emergencies on the site.

D.7.2.1 Federal Regulations

Hazardous Materials

Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984

The Resource Conservation and Recovery Act (RCRA), or Solid Waste Disposal Act (42 U.S.C. 6901 et seq.), established a framework for the proper management of hazardous and non-hazardous solid waste. This act, along with the Toxic Substances Control Act, enacted a program administered by the U.S. Environmental Protection Agency (EPA) for regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle-to-grave” system of regulating hazardous wastes from their creation to disposal. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act. RCRA focuses on active and future facilities; it does not address abandoned or historical sites, which are managed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601 et seq.).

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

CERCLA (42 U.S.C. 9601 et seq.), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for the release of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. The law authorizes two types of responses: (1) short-term removals requiring prompt response and (2) long-term remedial response actions that permanently and significantly reduce serious on-site dangers. CERCLA also enabled revision of the National Contingency Plan (42 U.S.C. 9605). The National Contingency Plan provided guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priorities List of contaminated sites warranting further investigation by the EPA. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Clean Air Act

Under the authority of Section 112(r) of the Clean Air Act, the Chemical Accident Prevention Provisions require facilities that produce, handle, process, distribute, or store more than a “threshold quantity” of any extremely hazardous toxic and flammable substance listed at 40 CFR, Part 68.130, to develop and implement a risk management program, prepare a risk management plan, and submit the risk management plan to the EPA. Although a federal program, the Risk Management Program is intended to reduce hazards at the local level. The program is applicable to companies of all sizes that use certain flammable and toxic substances. The Risk Management Program is intended to help local fire, police, and emergency response personnel (first responders) in the event of an accidental spill or exposure event. The Risk Management Program is contained in the Clean Air Act (42 U.S.C. 7401 et seq.).

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the CFR. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). These agencies also govern permitting for hazardous materials transportation.

EPA Region 9, Preliminary Remediation Goals

Region 9 is the Pacific Southwest Division of the EPA, which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and over 140 Tribal Nations. Preliminary Remediation Goals (PRGs) are tools for evaluating and cleaning up contaminated sites. PRGs for the Superfund/RCRA programs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered to be protective for humans (including sensitive groups) over a lifetime. However, PRGs are not always applicable to a particular site and do not address non-human health issues such as ecological impacts. Region 9’s PRGs are viewed as agency guidelines, not legally enforceable standards.

Air Traffic Safety

Federal Aviation Administration

The Federal Aviation Administration (FAA) has primary responsibility for the safety of civil aviation. The FAA’s major functions regarding hazards include the following: (1) developing and operating a common system of air traffic control and navigation for both civil and military aircraft, (2) developing and implementing programs to control aircraft noise and other environmental

effects of civil aviation, (3) regulating U.S. commercial space transportation, and (4) conducting reviews to determine that the safety of persons and property on the ground are protected.

The Code of Federal Regulations (CFR) (14 CFR 77) establishes the standards and notification requirements set forth by the FAA for construction activities that would result in obstructions to FAA-regulated airspace. The CFR defines an “aviation impact” as construction or alteration that installs any equipment or structures measuring more than 200 feet above the ground or construction or alteration that is located within an instrument approach area (14 CFR 77.13(a)(4)). As the project would not alter structures within a runway protection zone, this regulation would not apply to SDG&E’s proposed project.

Although the project would not involve steel pole structures greater than 200 feet, in some areas the power lines would exceed 200 feet where the power lines traverse canyons and drainages. In the areas where marker balls are required by the FAA on catenary wires, they would comply with Advisory Circular AC 70/7460-1K, Obstruction Marking and Lighting.

U.S. Department of Defense Air Installations Compatible Use Zone Program

Safety compatibility criteria for military air bases are set forth through the Air Installations Compatible Use Zone (AICUZ) Program administered by the U.S. Department of Defense (DOD). This program applies to military air installations located within the United States, its territories, trusts, and possessions. The AICUZ Program has the following four purposes: (1) to set forth DOD policy on achieving compatible use of public and private lands in the vicinity of military airfields, (2) to define height and land use compatibility restrictions, (3) to define procedures by which AICUZ may be defined, and (4) to provide policy on the extent of government interest in real property within these zones that may be retained or acquired to protect the operational capability of active military airfields.

Emergency Response

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that: (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

D.7.2.2 State Laws and Regulations

Hazardous Materials

Hazardous Waste Control Law

The California Hazardous Waste Control Law is administered by the California Environmental Protection Agency to regulate hazardous wastes. While the Hazardous Waste Control Law is generally more stringent than RCRA, until the EPA approves the California hazardous waste control program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

The California Code of Regulations (CCR) provides the following definition for hazardous waste (22 CCR 66261.10 (a) (1)):

A waste that exhibits the characteristic may: (A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed.

According to 22 CCR, substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated or is being stored prior to proper disposal.

Toxic substances may cause short- or long-term health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric (battery) acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized

canisters, and pure sodium metal) may cause explosions or generate gases or fumes as a result of contamination or exposure to heat, pressure, air, or water.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as “mixed wastes.” Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents such as bacteria or viruses.

Department of Toxic Substances Control

The Hazardous Waste Control Law states that any person who stores, treats, or disposes of hazardous wastes must obtain a Hazardous Waste Facility Permit or a grant of authorization from the Department of Toxic Substances Control.

California Accidental Release Prevention Program

Similar to the federal Risk Management Program, the California Accidental Release Prevention Program (CalARP) includes additional state requirements and an additional list of regulated substances and thresholds. The regulations of the program are contained in 19 CCR 2735.1 et seq. The intent of CalARP is to provide first responders with basic information necessary to prevent or mitigate damage to public health, safety, and the environment from the release or threatened release of hazardous materials.

California Department of Transportation and California Highway Patrol

Caltrans regulates the transportation of hazardous materials throughout the state. Caltrans requires that drivers transporting hazardous wastes obtain a certificate of driver training that shows the driver has met the minimum requirements concerning the transport of hazardous materials, including proper labeling and marking procedures, loading/handling processes, incident reporting and emergency procedures, and appropriate driving and parking rules. The California Highway Patrol also requires shippers and carriers to complete hazardous materials employee training before transporting hazardous materials.

Health and Safety

California Health and Safety Code

In California, the handling and storage of hazardous materials is regulated by Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a hazardous materials business plan. The business plan provides

information to local emergency response agencies regarding the types and quantities of hazardous materials stored at a facility, and detailed emergency planning and response procedures in the event of a hazardous materials release. In the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California code, facilities are also required to prepare a risk management plan and California accidental release plan. The risk management plan and accidental release plan provide information about the potential impact zone of a worst-case release and require plans and programs designed to minimize the probability of a release and mitigate potential impacts.

Underground or aboveground storage tanks (USTs/ASTs) are typically used to store hazardous waste. Regulations regarding USTs used to store hazardous materials require owners and operators to register, install, monitor, and remove their tanks according to established standards and procedures. Releases are to be reported to the local Certified Unified Program Agency. Chapter 6.67 of the California Health and Safety Code (Sections 25270–25270.13) regulates the storage of petroleum in ASTs and requires construction methods and monitoring to prevent petroleum releases. Owners of ASTs containing petroleum products with an aggregate storage capacity greater than 1,320 gallons are required to prepare and implement spill prevention and response strategies and to contribute to the Environmental Protection Trust Fund that is used to respond to some spills. Proper drainage, dikes, and walls are required to prevent accidental discharges from endangering employees, facilities, or the environment.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the work place. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Public Utilities Transmission Line Safety Requirements

California Public Utilities Commission General Order 95: Rules for Overhead Transmission Line Construction

General Order 95 (GO 95) was adopted in 1941 and updated in January 2012. Additionally, on February 5, 2014, California Public Utilities Commission (CPUC) decision D.14-02-015 revised GO 95 to incorporate new and modified rules to reduce the fire hazards associated with overhead power lines and aerial communication facilities in close proximity to power lines. GO 95 is the key standard governing the design, construction, operation, and maintenance of overhead electric

lines in the state. It includes safety standards for overhead electric lines, including minimum distances for conductor spacing and minimum conductor ground clearance, standards for calculating maximum sag, electric line inspection requirements, and vegetation clearance requirements.

Rule 31.2, Inspection of Lines, requires that lines be inspected frequently and thoroughly to ensure they are in good condition, and that lines temporarily out of service be inspected and maintained as not to create a hazard.

Rule 35, Tree Trimming, defines minimum vegetation clearance around power lines. Rule 35 guidelines, at the time of trimming, require the following:

- Four-foot [4-foot] radial clearances for any conductor of a line operating at 2,400 volts or more, but less than 72,000 volts
- Six-foot [6-foot] radial clearances for any conductor of a line operating at 72,000 volts or more, but less than 110,000 volts
- Ten-foot [10-foot] radial clearances for any conductor of a line operating at 110,000 volts or more, but less than 300,000 volts (this would apply to SDG&E's proposed project)
- Fifteen-foot [15-foot] radial clearances for any conductor of a line operating at 300,000 volts or more.

Under California Public Utilities Code, Section 1708.5, interested persons are permitted to petition the CPUC to adopt, amend, or repeal a regulation. In response to the 2007 wildfires in San Diego County, on November 6, 2007, SDG&E submitted a petition to the CPUC requesting that the CPUC issue an Order Instituting Rulemaking to determine whether GO 95 should be amended or whether more rules should be adopted to address disaster preparedness, including damage from Santa Ana Wind-driven firestorms (CPUC and BLM 2008). The petition requested that the CPUC consider several items, including the following:

- Operating rural electrical lines differently during severe fire weather
- Mitigating potential hazards associated with rural lines, including undergrounding line, using steel poles in place of wood, and shortening spans between poles
- Better coordinating disaster management efforts among agencies, municipalities, local jurisdictions, and utilities
- Maintaining electrical line rights-of-way free of vegetation
- Adopting a statewide Disaster Management Plan.

On February 5, 2014, in this rulemaking, CPUC decision D.14-02-015 revised GO 95 to incorporate new and modified rules to reduce the fire hazards associated with overhead power lines and aerial communication facilities in close proximity to power lines.

California Public Resources Code

The California Public Resources Code (PRC) regulations are discussed in further detail as follows:

- **PRC, Section 4291** requires a reduction of fire hazards around buildings, requiring 100 feet of vegetation management around all buildings, and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE [California Department of Forestry and Fire Protection] jurisdiction.
- **PRC, Section 4292** states that a minimum firebreak of 10 feet in all directions from the outer circumference of such pole or tower be established around any pole that supports a switch, transformer, lightning arrester, line junction, or end or corner pole. All vegetation shall be cleared within the firebreak.
- **PRC, Section 4293** establishes the minimum vegetation clearance distances (between vegetation and energized conductors) required for overhead transmission line construction. Minimum clearances are discussed as follows:
 - A minimum radial clearance of 4 feet shall be established for any conductor of a line operating at 2,400 or more volts but less than 72,000 volts.
 - A minimum radial clearance of 6 feet shall be established for any conductor of a line operating at 72,000 or more volts but less than 110,000 volts.
 - A minimum radial clearance of 10 feet shall be established for any conductor of a line operating at 110,000 or more volts but less than 300,000 volts.
 - A minimum radial clearance of 15 feet shall be established for any conductor of a line operating at 300,000 or more volts.

Specific requirements applicable to the construction and operation of SDG&E's proposed project include those from PRC, Division 4, Chapter 6:

- **Section 4427** – Operation of fire-causing equipment
- **Section 4428** – Use of hydrocarbon-powered engines near forest, brush, or grass-covered lands without maintaining firefighting tools
- **Section 4431** – Gasoline-powered saws, etc.; firefighting tools
- **Section 4442** – Spark arrestors as fire prevention measures; requirements, exemptions.

D.7.2.3 Regional Policies, Plans, and Regulations

San Diego County, Site Assessment and Mitigation Program

The County Department of Environmental Health (DEH) maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. The County SAM Program, within the Land and Water Quality Division of the DEH, has a primary purpose to protect human health, water resources, and the environment within the County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code and CCR. SAM's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects, including properties contaminated with hazardous substances.

Airport Land Use Compatibility Plans

The County of San Diego has adopted the ALUCPs for the four airports located within 15 miles of the project alignment: Aqua Caliente Airport, Gillespie Field, Jacumba Airport, and Ramona Airport. ALUCPs are plans that guide property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property, and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict their operations. The ALUCPs define an area around the airports known as the Airport Influence Area (AIA), which is established by factors including airport size, operations, and configuration, as well as the safety, airspace protection, noise, and over-flight impacts on the land surrounding an airport. None of the project components are located within any of the AIAs of the nearest airports (County of San Diego 2010, 2011a, 2011b, 2011c). Therefore, SDG&E's proposed project is not subject to the restrictions applicable to the ALUCPs/AIAs.

D.7.3 Environmental Effects

D.7.3.1 Definition and use of CEQA Significance Criteria/Indicators under NEPA

The CEQA criteria and guidelines described below are also used as indicators of adverse effect under NEPA. The following public health and safety significance criteria were derived from previous environmental impacts assessments and from Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Under CEQA, public health and safety impacts would be significant if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment
- Result in a safety hazard for people residing or working in the project area (for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport) or result in a safety hazard for people residing or working in the project area (for a project within the vicinity of a private airstrip)
- Result in a change in air traffic pattern, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Create safety hazards due to structural failure
- Create induced shock hazards.

D.7.3.2 Applicant Proposed Measures

SDG&E has proposed Applicant Proposed Measure (APM) HYD-09 which includes measures to handle hazardous materials. This APM would be implemented as part of SDG&E's proposed project to reduce impacts due to hazardous materials (see Section B.7 of this EIR/EIS).

D.7.3.3 Direct and Indirect Effects

Impact PHS-1 Result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

Construction

Approval of SDG&E's proposed project would authorize the continued operation and maintenance of SDG&E electric facilities within the Cleveland National Forest and authorize the power line replacement projects. As discussed in above in Section D.7.1, no evidence of PCBs was observed along the project alignment during the Phase I site reconnaissance, and SDG&E staff have indicated that PCBs are not currently used in the SDG&E transmission and distribution line components. Petroleum products, such as vehicle equipment fuel, and transformer oil, paint, and solvents would be transported, stored, and used during construction and operation of the project. Storage of these hazardous materials would occur in the construction staging areas along the project alignment. Herbicides may be used prior to construction activities and during operation of the project to clear and maintain vegetation along the alignment. To minimize impacts associated with the routine transport, use, or disposal of hazardous materials, Mitigation Measures (MM) MM PHS-1 and MM PHS-2 are provided to ensure agency oversight of the handling of hazardous material during

construction and implementation of best management practices (BMPs) would occur. With implementation of MM PHS-1 and MM PHS-2, adverse and significant impacts due to potential hazardous substance spills during construction would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

MM PHS-1 San Diego Gas & Electric (SDG&E) shall provide written documentation that all staff, including contractor, and subcontractor project personnel, have received training regarding the appropriate work practices necessary to effectively implement hazardous materials procedures and protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures.

MM PHS-2 San Diego Gas & Electric (SDG&E) shall implement best management practices (BMPs) to prevent impacts from release of hazardous materials during construction, operation, and maintenance activities. Typical BMPs could include, but would not be limited to, practices such as the use of absorbent pads for spill containment, specified locations for vehicle refueling, and a daily vehicle inspection schedule designed to identify leaking fuels and/or oils as early as possible. No hazardous material as define by 40 CFR 335 shall be stored on site, and all vehicle maintenance activities shall be conducted off site at designated locations specified for this activity. SDG&E will be required to complete a Spill Response and Notification Plan for agency approval before commencing construction.

During construction the project may require the use of explosives. These activities would be limited to areas where explosives are absolutely necessary, and precautions would be taken to limit accessibility to recreational users and the general public. Prior to removing earth or rock with the use of explosives, a pre-blast survey and blasting plan would be prepared for the project (MM PHS-3). The pre-blast survey would be conducted for structures within a minimum radius of 1,000 feet from the identified blast site. Sensitive receptors that could reasonably be affected by blasting would also be surveyed as part of the pre-blast survey. The blasting plan would outline the anticipated blasting procedures for the removal of rock material at pole locations and would address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement to ensure that all application regulatory measures are met.

MM PHS-3 In the event that rock blasting is used during construction, a noise and vibration calculation will be prepared and submitted to the California Public Utilities Commission and the County of San Diego for review before blasting at each site. The construction contractor will ensure compliance with all relevant local, state, and federal regulations relating to blasting activities. In addition to any

other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions:

- The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by San Diego Gas & Electric (SDG&E) or SDG&E's contractor. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey. Notification that blasting would occur shall be provided to all owners of the identified structures to be surveyed prior to commencement of blasting. The pre-blast survey shall be included in the final blasting plan.
- The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the *Blasting Guidance Manual* of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement.
- The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed pole locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. The applicant, general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.

With implementation of MM PHS-3, adverse and significant public health and safety impacts due to the possible use of explosives during construction would be mitigated under NEPA, and under CEQA would be considered less than significant with mitigation (Class II).

Operations and Maintenance

Operations and maintenance of the proposed power line replacement projects along with the other SDG&E electrical facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project. No chemical or hazardous materials (40 CFR 335) are anticipated to be produced, stored, or disposed of as a result of operation and maintenance. As part of maintenance activities,

minimal amount of chemicals, such as pesticides would be used at the project site. Chemicals would be stored according to applicable requirements and regulations to limit the risk of adverse effects. Additionally, material used for maintenance activities would be transported, handled, and contained in accordance with all federal, state, and local laws regulating the use of hazardous materials. Consequently, the use of chemicals and materials alone for their intended purpose would not pose a significant risk to the public. However, accidental spills during operation and maintenance activities could occur. With implementation of MM PHS-1 and MM PHS-2, adverse and significant impacts due to potential hazardous substance spills during operations and maintenance would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

Impact PHS-2 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

As shown on Figure D.7-1, there are five schools located within a quarter mile of the proposed power line replacement projects for TL682, TL629, C157, and C449.

As discussed under Impact PHS -1, hazardous materials used during the construction, operation, and maintenance activities along the project alignment may inadvertently be released through spills or leaks. An accidental release of a hazardous material in close proximity to a school may result in adverse impacts. However, with the incorporation of MM PHS-1 through MM PHS-3, the potential to create a significant hazard through release of hazardous materials would be substantially reduced, and potential adverse and significant impacts from the accidental release of hazardous materials to schools would therefore be mitigated under NEPA and would be considered less than significant with mitigation (Class II) under CEQA.

Table D.7-1
Public Health and Safety Impacts Associated with SDG&E’s Proposed Project

Project Components (listed from north to south)	Description of Impact	Significance Determination
TL682	TL 682 is adjacent to the Denver C. Fox Outdoor Education School, which is located at 24102 Highway 76, Santa Ysabel, California. During construction, maintenance, and operation of TL682, hazardous materials, such as petroleum products and solvents, would be used and may inadvertently be released through spills or leaks, which could impact students and result in a significant impact.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
TL626	There are no schools within a one-quarter mile of this portion of the project alignment.	No impact identified.
TL625	There are no schools within a one-quarter mile of this portion of the project alignment.	No impact identified.
TL629	TL 629 is adjacent to the Descanso Elementary	Adverse under NEPA and less

**Table D.7-1
Public Health and Safety Impacts Associated with SDG&E’s Proposed Project**

Project Components (listed from north to south)	Description of Impact	Significance Determination
	School, which is located at 24842 Viejas Boulevard, Descanso, California, and the Pine Valley Elementary School, located at 7454 Pine Boulevard, Pine Valley, California. During construction, maintenance and operation of TL629, hazardous materials, such as petroleum products and solvents, would be used and may inadvertently be released through spills or leaks, which could impact students resulting in a significant impact.	than significant with mitigation under CEQA (Class II)
TL6923	There are no schools within a one-quarter mile of this portion of the project alignment.	No impact identified.
C79	There are no schools within a one-quarter mile of this portion of the project alignment.	No impact identified.
C157	C157 passes next to Camp Barrett, located up Sky Valley Road, with a mailing address of 21077 Lyons Valley Road, Alpine, California. During construction, maintenance, and operation of C157, hazardous materials, such as petroleum products and solvents, would be used and may inadvertently be released through spills or leaks, which could impact students and result in a significant impact.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
C442	There are no schools within a one-quarter mile of this portion of the project alignment.	No impact identified.
C440	There are no schools within a one-quarter mile of this portion of the project alignment.	No impact identified.
C449	The section of C449 that is proposed for undergrounding is adjacent to the Mountain Empire High School, located at 3305 Buckman Springs Road, Pine Valley, California, and the Cottonwood Community Day School, located at 3291 Buckman Springs Road, Pine Valley, California. During construction, maintenance, and operation of C449, hazardous materials, such as petroleum products and solvents, would be used and may inadvertently be released through spills or leaks, which could impact students and result in a significant impact.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)

Impact PHS-3 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment

With the exception of one site located along TL629, there are no other known hazardous materials sites located within SDG&E’s proposed project impact area. As shown on Figure D.7-

1, one known hazardous material site has been identified along TL629 between poles Z173105 and Z173109. A release of gasoline to soil and groundwater from two underground storage tanks occurred at the Pine Valley Trailer Park, which resulted in elevated levels of hazardous materials in the soil and groundwater below Highway 80 (the project alignment). Though TL629 crosses the area of suspected contaminated soils along Highway 80, SDG&E's proposed project does not include any ground-disturbing activities within this area as the power lines would be strung above ground between poles that are not within the area of suspected contamination. To ensure that the project would not excavate contaminated soils and expose people to hazardous materials present, MM PHS-4 would be implemented that would properly identify the area of suspected contamination during construction and instruct all personnel to avoid the area. With implementation of MM PHS-4, adverse and significant impacts due to potential disturbance of a known hazardous materials site along TL629 would be mitigated under NEPA, and would be less than significant with mitigation (Class II) under CEQA.

MM PHS-4 Prior to construction, all San Diego Gas & Electric (SDG&E), contractor, and subcontractor project personnel shall receive training regarding the location of suspected soil and groundwater contamination along TL629 between poles Z173105 and Z173109, and will be instructed to avoid the area.

Impact PHS-4 Result in a safety hazard for people residing or working in the project area (for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport) or result in a safety hazard for people residing or working in the project area (for a project within the vicinity of a private airstrip)

The project is not located within a public airport land use plan or within 2 miles of a public airport; however, there are four private airports and four public airports as shown in Figure D.7-1 located within a 15-mile radius of the proposed power line replacement projects. The Reider Ranch Airport, located approximately 0.75 mile south of TL6923 in Potrero, is the closest airport. The second nearest airport is the On the Rocks Airport, located approximately 1 mile from TL625 in Alpine. Additionally, the Flying T Ranch Airport is a privately owned airport located approximately 5.25 miles west of TL626, and the Rancho Vallecito Airport is a privately owned airport located on County Highway S2 in Julian, approximately 5.5 miles north of C440.

The project would replace existing power lines and associated wooden poles with steel poles. The new steel poles would have a maximum height between 100 and 120 feet replacing existing wood poles with a maximum height of 90 feet. The proposed new steel replacement poles would not be considered a potential obstruction to air traffic by the FAA, as the proposed components would not exceed 200 feet in height, in accordance with FAA Final rule on July 21, 2010 (75 FR 42296, CFR Part 77 for the "Safe, Efficient Use and Preservation of the Navigable Airspace.")

Because the new steel poles would be a maximum of 120 feet and not located with an airport land use plan, they would not extend into navigable air space. In addition, in areas where the power lines cross canyons and drainages that exceed 200 feet, such as over the San Diego River canyon (TL626) and I-8 near State Route 79 (TL625), SDG&E will continue to comply with FAA Advisory Circular AC 70/7460-1K regarding the use of marker balls on wires. Therefore, the proposed new steel poles and power lines would not increase safety hazards related to obstructions with aircraft.

SDG&E's proposed project would require occasional, short-term helicopter support during construction, operations, and maintenance. Temporary use of helicopters is not expected to interfere with air traffic patterns. However, if helicopters are used for the installation or removal of structures, MM PHS-5 and MM PHS-6 will apply and will ensure that helicopter use follows all safety procedures in compliance with FAA regulations (MM PHS-5 supersedes APM-06). With implementation of these measures, adverse and significant impacts to air traffic patterns and air safety due to the use of helicopters would be mitigated under NEPA and less than significant with mitigation under CEQA (Class II).

MM PHS-5 Prior to flight operations for helicopter use during construction as well as operations, San Diego Gas & Electric (SDG&E) shall coordinate with local air traffic control and comply with all Federal Aviation Administration (FAA) regulations regarding helicopter use to prevent conflicts with air traffic generated by local airstrips. Documentation verifying SDG&E has coordinated with local air traffic control shall be provided to California Public Utilities Commission prior to use of helicopters for construction and operations and maintenance activities. SDG&E shall prepare an Aviation Safety Plan for Forest Service approval prior to any use of helicopters in support of activities on the Cleveland National Forest. The Aviation Safety Plan will outline the procedures used to ensure safe transportation of external loads, and will identify coordination requirements with Forest Service aviation resources operating in the area.

MM PHS-6 Should helicopters be required to lift any structures, San Diego Gas & Electric (SDG&E) shall prepare a Helicopter Lift Plan to outline helicopter operations and safety procedures for the project. The Helicopter Lift Plan will be prepared consistent with applicable FAA regulations pertaining to these operations and consistent with SDG&E avian safety standards included in SDG&E's Aviation General Operations Manual. The Helicopter Lift Plan will be provided to the California Public Utilities Commission (CPUC) prior to initiating activities.

Impact PHS-5 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

During the construction period, all streets would remain open to emergency vehicles. The only indirect impact would result from construction vehicles using roadways to access pole construction sites. Because the number of vehicles would represent a minimal contribution to average daily traffic flow, these vehicles would not impair traffic flow. Additionally, as discussed in Section D.14.3.2, per APM TRANS-05, the applicant would prepare and implement a Traffic Control Plan during construction, and per APM TRANS-03, emergency vehicles will be provided access even in the event of temporary road or lane closures. With implementation of APM TRANS-03 and APM TRANS-05, the project would not block emergency vehicle access along any of the designated emergency roads and, consequently, would not interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would not be adverse under NEPA, and would be considered less than significant (Class III) under CEQA.

Impact PHS-6 Create safety hazards due to structural failure

For a discussion of fire hazards see Section D.8, Fire and Fuels Management, of this EIR/EIS.

Extreme Weather

While wind speeds in the study area have been observed to 115 mph (Schroeder et al. 1964), and the proposed steel poles would be subject to increased risk of lightning strikes due to their composition and increased height, SDG&E will be required as discussed in Section D.7.2.2, State Laws and Regulations, and in Section D.8, Fire and Fuels Management, of this EIR/EIS, to design the proposed new steel poles and associated facilities in accordance with the safety requirements of the CPUC's General Order 95 (GO 95). GO 95 is the key standard governing the design, construction, operations, and maintenance of overhead electrical lines in the State of California. As further discussed in Section D.8, Fire and Fuels Management, based on the conservative nature of GO 95, operation of the proposed power line replacement projects and associated hardware would not pose a significant safety hazard due to structural failure precipitated by high winds and or lightning.

Seismic Activity

Strong earthquake-induced ground shaking can result in damage to aboveground structures. Transmission lines are designed to withstand strong ground shaking and moderate ground-deformation impacts associated with strong seismic shaking. However, unsafe conditions could occur along the project alignment should power lines or poles break due to moderate to high levels of ground shaking or liquefaction in the area. Implementation of MM PHS-7 and MM PHS-8 would reduce impacts associated with ground shaking and liquefaction because they

would ensure that the project adhere to all applicable engineering design and construction codes that would reduce adverse effects resulting from fault rupture both during construction and operational phase.

MM PHS -7 Conduct geotechnical investigations. The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet California Building Code (CBC) and Institute of Electrical and Electronics Engineers (IEEE) design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in underground cables to allow ground deformations without damage to structures.

MM PHS-8 Facilities inspections conducted following major seismic event. If large levels of ground shaking (such as Modified Mercalli Intensity VI or greater) are experienced or a major earthquake (magnitude 6.0 and above) occurs along the Elsinore Fault, a professional licensed geologist, geotechnical engineer, and structural engineer hired by the project applicant shall perform facilities inspections as quickly as possible. Careful examination shall be conducted of all project facilities. Any required repair or needed improvements shall be implemented as soon as feasible to ensure that the integrity of project facilities has not been compromised.

Based on the conservative nature of the specification in CPUC's GO 95, operation and maintenance of the proposed power line replacement projects along with all facilities proposed to be covered under the MSUP would not pose a significant safety hazard due to structural failure precipitated by extreme weather (high winds, lightning). With implementation of standard geotechnical design measures (MM PHS-7 and MM PHS-8), potential adverse effects due to seismic hazards would be mitigated. Therefore, adverse and significant impacts to public safety due to structural failure precipitated by either extreme weather and or seismic event would be mitigated under NEPA, and under CEQA, impacts would be considered less than significant with mitigation (Class II).

Impact PHS-7 Induced Shock Hazards

As discussed in Section D.7.2.2 State Laws and Regulations, SDG&E will be required to design the proposed power line replacement projects in accordance with the safety requirements of CPUC's GO 95, which includes guidelines and minimum clearances to address and protect the

public from shock hazards including minimum distances for conductor spacing and conductor clearance as well as standards for calculating maximum sag. Based on the conservative nature of the specification in CPUC's GO 95, operation and maintenance of the proposed power line replacement projects along with all facilities proposed to be covered under the MSUP would not pose a significant safety hazard due to induced shock hazards; therefore, under NEPA this impact would not be adverse and under CEQA would be less than significant (Class III).

D.7.4 Forest Service Proposed Actions

D.7.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Sections D.7.1 and D.7.2 describe the existing environmental setting associated with SDG&E's proposed project. Each of the five options for Forest Service proposed action alternatives for TL626 would relocate a segment of TL626. The farthest relocation would be 2 miles to the east of the existing alignment and would primarily be located in undeveloped areas similar to the proposed reconstruction of TL626. Therefore, for purposes of the analysis conducted in this EIR/EIS, the public health and safety environmental setting, except where noted, is assumed to be similar to that identified in Sections D.7.1 and D.7.2.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts PHS-1 through PHS-7: This alternative would reroute a 3.7-mile segment of TL626 to the east along a new undisturbed ROW (Figure B-4a), which under Option 1 would consist of 5.5 miles and under Option 2 would consist of 5.6 miles. Options 1 and 2 would consist of similar construction as well as operations and maintenance activities as that described for SDG&E's proposed project. Due to the rural nature of the new ROWs proposed under this alternative, there would not be a substantial change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues; therefore, construction and operation impacts related to hazardous substances and public safety would essentially be the same for the relocation of TL626 under options 1 and 2 and would reflect the impact findings similar to those discussed in Section D.7.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Options 1 and 2 would result in greater impacts to aviation hazards (Impact PHS-4) than SDG&E's proposed project as a result of new poles and power lines in an area where none previously existed. The new poles and lines would create an obstacle to be avoided and would require attention from pilots. This identified impact would be adverse; therefore, MM PHS-9 has been provided to mitigate this impact. Under NEPA, impacts would be adverse but mitigated. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

MM PHS-9 Consult with and inform the Federal Aviation Administration (FAA) and Local Fire Agencies. The applicant shall consult with the FAA and local fire agencies to avoid potential safety issues associated with proximity to airports and landing strips and to determine where fire protection aircrafts operate in the County. Prior to construction, the applicant shall provide written notification to the FAA, local fire agencies, and the appropriate land use jurisdictional agency, stating when and where the new structures and electric lines will be erected, and shall install markers if requested by FAA. The applicant shall also provide all agencies contacted with aerial photos or topographic maps clearly showing the location of new structures and power lines.

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impacts PHS-1 through PHS-7: Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. The rerouted underground segment of Option 3a is approximately 11.4 miles long, and the rerouted segment of Option 3b is approximately 6.3 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment). During construction, soil disturbance would be greater under this alternative as open trenching would be more invasive than excavation for power line poles. This additional trenching activity and soil disturbance required to underground Options 3a and 3b would slightly increase the potential to encounter contaminated soils as well as affect emergency access. Due to the rural and largely undeveloped nature in the vicinity of Boulder Creek Road, there would not be a substantial change to the baseline condition including the presence of hazardous materials, or the number of sensitive receptors or schools that could be exposed to hazardous materials or public safety issues. Therefore, as with SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Overall long-term impacts associated with structural failure (Impact PHS-6) and flight operations (Impact PHS-4) would be reduced for this portion of SDG&E's proposed project as the majority of the line would be underground; however, for the new 1-mile overhead segment impacts would be similar to SDG&E's proposed project because facilities would be constructed above ground in a new ROW. With implementation of MM PHS-5, MM PHS-6, MM PHS-7, MM PHS-8, and MM PHS-9 potential adverse effects would be mitigated under NEPA, and under CEQA, significant impacts would be considered less than significant with mitigation (Class II).

Option 4: Overhead Relocation Along Boulder Creek Road

Environmental Effects

Impacts PHS-1 through PHS-7: This alternative would reroute a segment of TL626 along Boulder Creek Road and overland as shown in Figure B-4a. The rerouted segment would be approximately 4.7 miles longer than proposed by the project. Construction and operation impacts related to hazardous substances and public safety would reflect the impact findings similar to those discussed in Section D.7.3.3 for SDG&E's proposed project. Due to the rural nature of the vicinity of Boulder Creek Road proposed under this alternative there would not be a substantial change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues. Therefore, as with SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Option 4 would result in greater impacts to aviation hazards (Impact PHS-4) than SDG&E's proposed project as a result of new poles and power lines in an area where none previously existed. The new poles and lines would create an obstacle to be avoided and would require attention from pilots. This identified impact would be adverse; therefore, MM PHS-9 has been provided to mitigate this impact. Under NEPA, impacts would be adverse but mitigated. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts PHS-1 through PHS-7: Option 5 would reroute less than a 0.5-mile segment in close proximity to the existing TL626 alignment (Figure B-4c). All other project components would remain the same. Construction and operational impacts related to hazardous substances and public safety would essentially be the same for the relocation of TL626 under Option 5 as described in Section D.7.3.3 for SDG&E's proposed project. Due to the rural nature in the

vicinity of the affected portion of TL626 proposed under this alternative, there would not be a substantial change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues. Therefore, as with SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Option 5 would result in greater impacts to aviation hazards (Impact PHS-4) than SDG&E's proposed project as a result of relocating an overhead portion of TL626 in an area where none previously existed. Although within 0.5 mile of the exiting line, the new poles and lines would create an obstacle to be avoided and would require attention from pilots. This identified impact would be adverse; therefore, MM PHS-9 has been provided to mitigate this impact. Under NEPA, impacts would be adverse but mitigated. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

D.7.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.7.1 and D.7.2 describe the existing environmental setting associated with SDG&E's proposed project. The Forest Service proposed actions for C157 would be in the same geographic region as SDG&E's proposed project; therefore, the public health and safety environmental setting would be the same as that identified in Sections D.7.1 and D.7.2.

Environmental Effects

Impacts PHS-1 through PHS-7: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). All other project components would remain the same. Construction and operational impacts related to hazardous substances and public safety would essentially be the same for the relocation of C157 under Options 1 and 2, as described in Section D.7.3.3 for SDG&E's proposed project. Due to the rural nature in the vicinity of C157 proposed under this alternative, there would not be a substantial change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues. Therefore, as with SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1

through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Options 1 and 2 would result in greater impacts to aviation hazards (Impact PHS-4) than SDG&E's proposed project as a result of relocating an overhead portion of C157 in an area where none previously existed. Although within 0.25 mile of the existing line, the new poles and lines would create an obstacle to be avoided and would require attention from pilots, but the existing obstacle would be removed. This identified impact would be adverse; therefore, MM PHS-9 has been provided to mitigate this impact. Under NEPA, impacts would be adverse but mitigated. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

D.7.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

Sections D.7.1 and D.7.2 describe the existing environmental setting associated with C440. This alternative would consist of undergrounding approximately 14.3 miles of C440 proposed for replacement within existing roadways in the Laguna Mountain Recreation Area. As this area is in the same geographic region as SDG&E's proposed project, the public health and safety environmental setting would be the same as that identified in Sections D.7.1 and D.7.2.

Environmental Effects

Impacts PHS-1 through PHS-7: During construction, soil disturbance would be greater under this alternative as open trenching would be more invasive than excavation for power line poles. Although the underground ROW would be within existing roadways, this additional trenching activity and soil disturbance required to underground would increase the potential to encounter contaminated soils as well as affect emergency access. Due to the rural nature in the vicinity of C440, there would not be a substantial change to the baseline condition concerning the presence of hazardous materials, schools, or airports that could be exposed to hazardous materials or public safety issues. However, there would be an increase in the number of sensitive receptors including residences and recreational users that could be affected by short-term construction activities. Similar to SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Long-term impacts associated with structural failure Impact PHS-6 and flight operations Impact PHS-4 would be reduced for this portion of SDG&E's proposed project to no impact.

D.7.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.7.1 and D.7.2 describe the existing environmental setting associated with TL682. The BIA proposed action for TL682 would relocate poles and underground approximately 1,500 feet on Tribal lands. As this area is in the same geographic region as SDG&E's proposed project, the environmental setting would be the same as that identified in Sections D.7.1 and D.7.2.

Environmental Effects

Impacts PHS-1 through PHS-7: During construction, soil disturbance would be greater under this alternative as open trenching would be more invasive than excavation for power line poles. This additional trenching activity and soil disturbance required to underground a portion of TL682 would slightly increase the potential to encounter contaminated soils. However, because the modifications proposed to TL 682 under this alternative would occur primarily along the existing ROW for TL 682, there would not be a change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues. Therefore, as with SDG&E's proposed project, with implementation of MM PHS-1, MM PHS-2, MM PHS-3, MM PHS-4, MM PHS-5, MM PHS-6, MM PHS-7, and MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

D.7.6 Additional Alternatives

D.7.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.7.1 and D.7.2.

Environmental Effects

Impacts PHS-1 through PHS-7: Under this alternative, overland access in rugged terrain and that exceed grades of 25% for appreciable distances in proximity to creeks (as outlined in Section C.4.2) would be removed and the areas restored (up to 10.5 miles). With the exception of impacts associated with helicopter use, impacts and mitigation measures related to hazardous substances and public safety would essentially be the same for this alternative as described in Section D.7.3.3 for SDG&E's proposed project. Impacts identified under Impact PHS-4 (flight operations) could increase under this alternative, as there may be increased

helicopter use both during construction and operations in the areas where access roads have been removed. MM PHS-5 and MM PHS-6 would apply to ensure that helicopter use will follow safety procedures and be in compliance with FAA regulations. With implementation of these measures, adverse and significant impacts would be mitigated under NEPA and less than significant with mitigation under CEQA (Class II).

D.7.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace it with system upgrades, either with TL6931 upgrades or a TL625 loop-in, as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with these upgrades is described as follows:

- a. Upgrade to the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation: The setting associated with this component is largely described in SDG&E's TL6931 Fire Hardening Project Proponent's Environmental Assessment (PEA) (SDG&E 2012b). As described in SDG&E's PEA, the existing ROW supports a 69 kV line. No hazardous sites have been identified within the existing ROW, and no schools exist within 0.25 mile of the ROW. The nearest airport is located approximately 7 miles southeast of the ROW.
- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. As described in the Sunrise Powerlink EIR/EIS, the majority of the terrain associated along the proposed 3-mile TL625 loop-in consists of rugged and remote terrain with little potential to encounter hazardous materials. The closest sensitive receptor identified is a school located over 5 miles to the northeast.
- c. Convert a 6.5-mile portion of TL626 between the Santa Ysabel and Boulder Creek substations from 69 kV to 12 kV, along with a 6.8-mile section that is co-located with C79 within the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.7.1 and D.7.2 for this component.

Environmental Effects

Reconstruction of TL6931

Impacts PHS-1 through PHS-7: Under this alternative, a 6-mile portion of TL6931 would be reconstructed, or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of TL626 would be converted from 69 kV to 12 kV.

Reconstruction of TL6931 would consist of construction as well as operations and maintenance activities similar to that described for the project. Due to the nature of the existing TL6931 alignment, there would not be a substantial change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues. Therefore, as with SDG&E's proposed project, with implementation of MM PHS-1 through MM PHS-8, adverse and significant Impacts PHS-1 through PHS-7 associated with this component would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Development of the New 3-Mile Loop-in of TL625

Impacts PHS-1 through PHS-7: Development of the new TL625 loop-in would consist of construction as well as operations and maintenance activities similar to those described for the project in areas of rugged terrain. Due to the existing undeveloped nature of the proposed alignment, there would not be a substantial change to the baseline condition including the presence of hazardous materials, number of sensitive receptors, schools, or airports that could be exposed to hazardous materials or public safety issues. Therefore, Impacts PHS-1 through PHS-3 and PHS-5 through PHS-7 would reflect similar impact findings previously discussed in Section D.7.3.3. As with SDG&E's proposed project, implementation of MM PHS-1 through MM PHS-4 and MM PHS-7 would under NEPA mitigate adverse Impacts PHS-1 through PHS-3 and adverse Impacts PHS 5 through PHS-7 associated with this component. Under CEQA significant impacts would be less than significant with mitigation (Class II).

Due to the intervening topography, an increase in helicopter use both during construction and operations and maintenance would be required, increasing public safety concerns over helicopter use as described in Impact PHS-4. In addition, the loop-in would result in constructing an overhead line in an area where none previously existed. However, it would be adjacent to the existing Sunrise Powerlink project, which serves as the major aerial obstacle in the area. Although adjacent to the existing 500 kV, the addition of the loop-in would be a new facility in the area that would create an obstacle to be avoided and would require attention from pilots. This identified impact would be adverse; therefore, MM PHS-9 has been provided to mitigate this impact. With implementation of MM PHS-5, MM PHS-6, and MM PHS-9, adverse and

significant Impact PHS-4 associated with this component would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Convert Segments of TL626 from 69 kV to 12 kV

Impacts PHS-1 through PHS-7: Conversion of segments of TL626 to 12 kV would consist of construction as well as operations and maintenance activities similar to those described for the project; therefore, Impacts PHS-1 through PHS-7 would reflect similar impact findings previously discussed in Section D.7.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM PHS-1 through MM PHS-7 would under NEPA mitigate adverse Impacts PHS-1 through PHS-7 associated with this component, and under CEQA significant impacts would be less than significant with mitigation (Class II).

D.7.7 No Action Alternative

Environmental Effects

Impacts PHS-1 through PHS-7: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional transmission lines in conformance with California ISO requirements and/or alternative means of delivering electrical service would result in similar construction impacts as described in Section D.7.3. Although similar, these impacts could vary depending on length and the location of electric lines pursued; therefore overall impacts to public health and safety would not be reduced.

D.7.8 No Project Alternative

Environmental Effects

Impacts PHS-1 through PHS-7: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electrical facilities would remain; therefore, none of the hazardous materials construction impacts described in Section D.7.3 would occur. The ongoing public health and fire risks associated with structural failure Impact PHS-6 due to extreme weather conditions would continue as further discussed in Section D.8 Fire and Fuels. Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic pole inspections and equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over

existing conditions; therefore, no impacts over existing conditions to public health and safety would occur.

D.7.9 Mitigation Monitoring, Compliance, and Reporting

Table D.7-2 presents the mitigation monitoring, compliance, and reporting program for public health and safety for the MSUP/PTC power line replacement projects and alternatives.

Table D.7-2
Mitigation Monitoring, Compliance, and Reporting – Public Health and Safety

Mitigation Measure	MM PHS-1 San Diego Gas & Electric (SDG&E) shall provide written documentation that all staff, including contractor, and subcontractor project personnel, have received training regarding the appropriate work practices necessary to effectively implement hazardous materials procedures and protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	a. Conduct training program including content in mitigation measure b. Provide documentation (attendee sign-in sheets) of project personnel training to the CPUC and Forest Service. c. CPUC/Forest Service monitor: Line item in compliance monitoring reports
<i>Timing</i>	a. b. and c. Prior to notice to proceed and throughout construction.
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)
Mitigation Measure	MM PHS-2 San Diego Gas & Electric (SDG&E) shall implement best management practices (BMPs) to prevent impacts from release of hazardous materials during construction, operation, and maintenance activities. Typical BMPs could include, but would not be limited to, practices such as the use of absorbent pads for spill containment, specified locations for vehicle refueling, and a daily vehicle inspection schedule designed to identify leaking fuels and/or oils as early as possible. No hazardous material as defined by 40 CFR 335 shall be stored on site, and all vehicle maintenance activities shall be conducted off site at designated locations specified for this activity. SDG&E will be required to complete a Spill Response and Notification Plan for agency approval before commencing construction.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	a. Prepare a Spill Response and Notification Plan b. Implement measures as defined and as further defined in the project SWPPP. c. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a. Prior to construction b. During construction, operation, and maintenance activities c. During construction
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)

Table D.7-2
Mitigation Monitoring, Compliance, and Reporting – Public Health and Safety

	<p><i>BIA Proposed Action:</i> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><i>Partial Removal of Overland Access Roads:</i> Forest Service</p> <p><i>Removal of TL626 from Service:</i> CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM PHS-3 In the event that rock blasting is used during construction, a noise and vibration calculation will be prepared and submitted to the California Public Utilities Commission and the County of San Diego for review before blasting at each site. The construction contractor will ensure compliance with all relevant local, state, and federal regulations relating to blasting activities. In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions:</p> <ul style="list-style-type: none"> • The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by San Diego Gas & Electric (SDG&E) or SDG&E's contractor. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey. Notification that blasting would occur shall be provided to all owners of the identified structures to be surveyed prior to commencement of blasting. The pre-blast survey shall be included in the final blasting plan. • The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the <i>Blasting Guidance Manual</i> of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement. • The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed pole locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. The applicant, general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Prepare a program-level blasting plan followed by specific blasting plans during construction</p> <p>b. CPUC/Forest Service Monitor: Line item in compliance monitoring report</p>
<i>Timing</i>	a. and b. Prior to and during construction
<i>Responsible Agency</i>	<p><i>SDG&E's Proposed Project:</i> CPUC, Forest Service and County, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><i>Forest Service Proposed Actions:</i> CPUC and Forest Service and County, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><i>BIA Proposed Action:</i> CPUC and Forest Service and County, BIA and La Jolla Indian Tribe (TL682)</p> <p><i>Partial Removal of Overland Access Roads:</i> Forest Service</p> <p><i>Removal of TL626 from Service:</i> CPUC and Forest Service and County, BIA and Campo Indian Tribe (TL6931)</p>

**Table D.7-2
Mitigation Monitoring, Compliance, and Reporting – Public Health and Safety**

Mitigation Measure	MM PHS-4 Prior to construction, all San Diego Gas & Electric (SDG&E), contractor, and subcontractor project personnel shall receive training regarding the location of suspected soil and groundwater contamination along TL629 between poles Z173105 and Z173109, and will be instructed to avoid the area.
<i>Location</i>	Along TL629 between poles Z173105 and Z173109.
<i>Compliance Documentation^(a) and Consultation</i>	a. Conduct training program including content in mitigation measure b. Provide documentation (attendee sign-in sheets) of project personnel training to the CPUC.
<i>Timing</i>	a. Prior to notice to proceed for TL629 b. Prior to and during construction
<i>Responsible Agency</i>	CPUC
Mitigation Measure	MM PHS-5 Prior to flight operations for helicopter use during construction as well as operations, San Diego Gas & Electric (SDG&E) shall coordinate with local air traffic control and comply with all Federal Aviation Administration (FAA) regulations regarding helicopter use to prevent conflicts with air traffic generated by local airstrips. Documentation verifying SDG&E has coordinated with local air traffic control shall be provided to California Public Utilities Commission prior to use of helicopters for construction and operations and maintenance activities. SDG&E shall prepare an Aviation Safety Plan for Forest Service approval prior to any use of helicopters in support of activities on the Cleveland National Forest. The Aviation Safety Plan will outline the procedures used to ensure safe transportation of external loads, and will identify coordination requirements with Forest Service aviation resources operating in the area.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	a. Prepare an Aviation Safety Plan as defined in measure b. Documentation showing coordination with Forest Service aviation resources as defined in plan, local air traffic control, and compliance with all applicable FAA regulations. c. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a and b. Prior to use of helicopters for construction activities c. During construction
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)
Mitigation Measure	MM PHS-6 Should helicopters be required to lift any structures, San Diego Gas & Electric (SDG&E) shall prepare a Helicopter Lift Plan to outline helicopter operations and safety procedures for the project. The Helicopter Lift Plan will be prepared consistent with applicable FAA regulations pertaining to these operations and consistent with SDG&E avian safety standards included in SDG&E's Aviation General Operations Manual. The Helicopter Lift Plan will be provided to the California Public Utilities Commission (CPUC) prior to initiating activities.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.

Table D.7-2

Mitigation Monitoring, Compliance, and Reporting – Public Health and Safety

<i>Compliance Documentation^(a) and Consultation</i>	a. Helicopter Lift Plan b. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a.. Prior to construction-related flight operations b. During construction
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)
Mitigation Measure	MM PHS-7 Conduct geotechnical investigations. The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet California Building Code (CBC) and Institute of Electrical and Electronics Engineers (IEEE) design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in underground cables to allow ground deformations without damage to structures.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	a. Geotechnical investigations for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards for approved project facilities. b. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a. Prior to construction b. During construction
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)
Mitigation Measure	MM PHS-8 Facilities inspections conducted following major seismic event. If large levels of ground shaking (such as Modified Mercalli Intensity VI or greater) are experienced or a major earthquake (magnitude 6.0 and above) occurs along the Elsinore Fault, a professional licensed geologist, geotechnical engineer, and structural engineer hired by the project applicant shall perform facilities inspections as quickly as possible. Careful examination shall be conducted of all project facilities. Any required repair or needed improvements shall be implemented as soon as feasible to ensure that the integrity of project facilities has not been compromised.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.

Table D.7-2
Mitigation Monitoring, Compliance, and Reporting – Public Health and Safety

<i>Compliance Documentation^(a) and Consultation</i>	a. Professional investigation of all approved project facilities following a major seismic event b. Submittal of report (indicates required repairs or needed improvements, actions taken to repair facilities, if needed, and timing of repair work)
<i>Timing</i>	a. Following a major seismic event b. During construction and operation
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

D.7.10 Residual Unavoidable Effects

Under NEPA, SDG&E's proposed project would result in adverse but mitigated impacts. Mitigation measures presented in Section D.7.9, along with APMs provided in Section D.7.3.2, would mitigate all impacts. Under CEQA, implementation of mitigation measures presented in Section D.7.9 would mitigate all significant public health and safety impacts to less than significant. Therefore, no residual effects would occur for SDG&E's proposed project or alternatives.

D.7.11 References

County of San Diego 2010. Gillespie Airport Land Use Compatibility Plan. Adopted January 25, 2010, Amended December 20, 2010.

County of San Diego 2011a. *Aqua Caliente Airport Land Use Compatibility Plan*. Adopted December 2006, amended December 2011.

County of San Diego 2011b. *Jacumba Airport Land Use Compatibility Plan*. Adopted December 2006, amended December 2011.

County of San Diego 2011c. *Ramona Airport Land Use Compatibility Plan*. Adopted December 2006, amended December 2011.

County of San Diego 2013a. "Agua Caliente Airport." County of San Diego, Department of Public Works, Airports. Accessed March 28, 2013. <http://www.sdcounty.ca.gov/dpw/airports/agua.html>.

County of San Diego 2013b. “Gillespie Field.” County of San Diego, Department of Public Works, Airports. Accessed March 28, 2013. <http://www.sdcounty.ca.gov/dpw/airports/gillespie.html>.

County of San Diego 2013c. “Jacumba Airport.” County of San Diego, Department of Public Works, Airports. Accessed March 28, 2013. <http://www.sdcounty.ca.gov/dpw/airports/jacumba.html>.

County of San Diego 2013d. “Ramona Airport.” County of San Diego, Department of Public Works, Airports. Accessed March 28, 2013. <http://www.sdcounty.ca.gov/dpw/airports/ramona.html>.

CPUC (California Public Utilities Commission). 2012. General Order 95: Rules for Overhead Transmission Line Construction. Prescribed by the CPUC of the State of California. January 2012. CPUC and BLM (California Public Utilities Commission and Bureau of Land Management). 2008. *Final Environmental Impact Report/Environmental Impact Statement and Proposed Land Use Amendment for the Sunrise Powerlink Project*. SCH No. 2006091071. DOI Control No. FES-08-54. Prepared by Aspen Environmental Group. Agoura Hills, California: Aspen Environmental Group. October 2008. <http://www.cpuc.ca.gov/environment/info/aspen/sunrise/toc-feir.htm>.

FAA (Federal Aviation Administration). 2014a. “Reidner Ranch.” National Flight Data Center. Accessed January 28, 2014. <https://nfdc.faa.gov/nfdcApps/airportLookup/airportDisplay.jsp?category=nasr&airportId=CA75>.

FAA. 2014b. “On the Rocks.” National Flight Data Center. Accessed January 28, 2014. <https://nfdc.faa.gov/nfdcApps/airportLookup/airportDisplay.jsp?category=nasr&airportId=1CA6>.

FAA 2014c. “Flying T Ranch.” National Flight Data Center. Accessed January 28, 2014. <https://nfdc.faa.gov/nfdcApps/airportLookup/airportDisplay.jsp?category=nasr&airportId=CA76>.

FAA. 2014d. “Rancho Vallecito.” National Flight Data Center. Accessed January 28, 2014. <https://nfdc.faa.gov/nfdcApps/airportLookup/airportDisplay.jsp?category=nasr&airportId=46CA>.

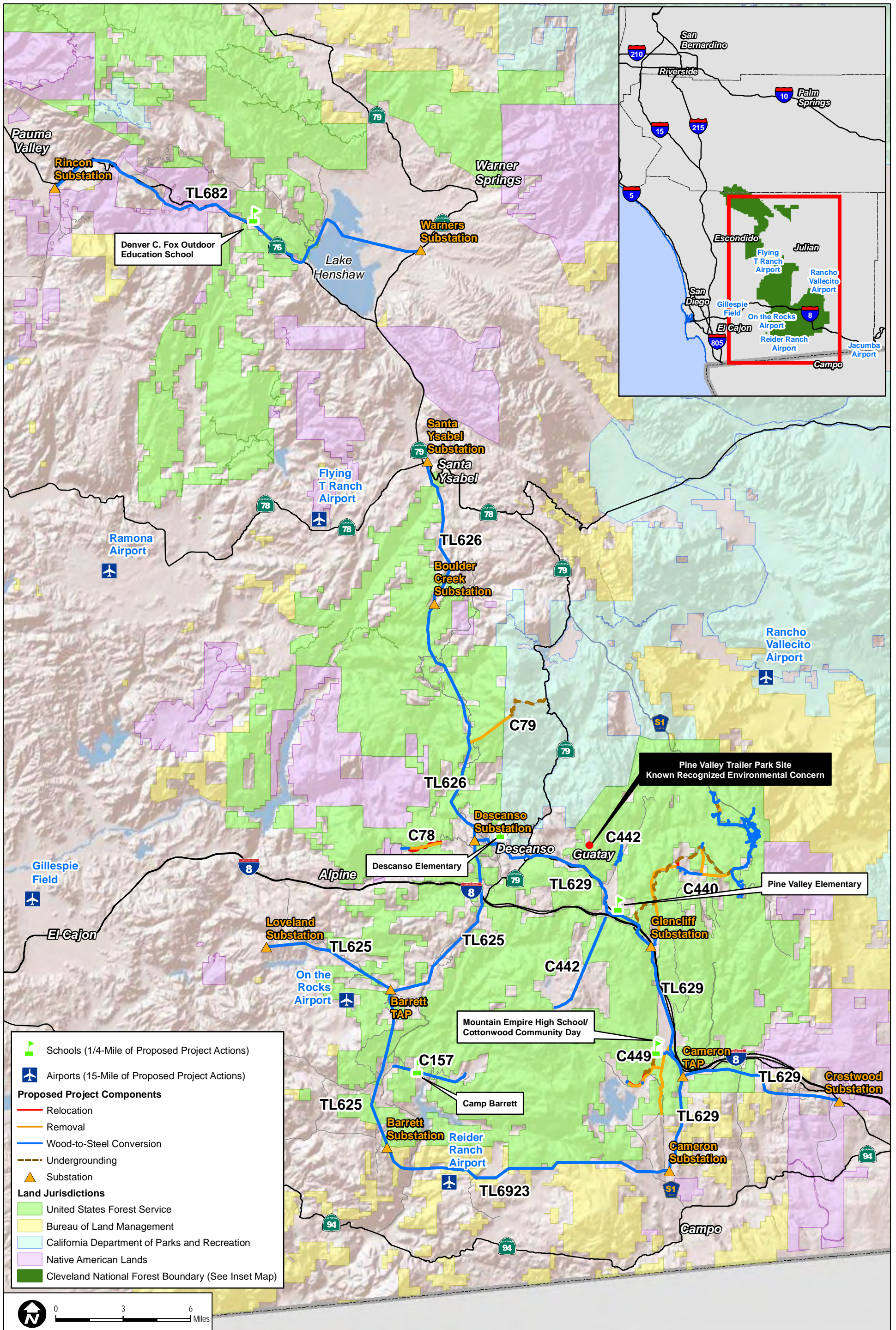
Schroeder, M. J., M. Glovinsky, V. Hendricks, F. Hood, and M. Hull. 1964. *Synoptic Weather Types Associated with Critical Fire Weather*. Washington, D.C.: U.S. Department of Commerce, National Bureau of Standards, Institute for Applied Technology, AD 449–630.

SDG&E (San Diego Gas & Electric). 2012a. Response to Cleveland National Forest Power Line Replacement Projects PTC Energy Division Data Request 01 (Dated October 30,

2012). Response dated December 3, 2012. <http://www.cpuc.ca.gov/environment/info/dudek/CNF/DR1Response.htm>.

SDG&E. 2012b. *Proponent's Environmental Assessment for the TL6931 Fire Hardening/Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.

SDG&E. 2014. Response A. 12-10-009 to Cleveland National Forest Power Line Replacement Projects PTC Energy Division Data Request 4 (Dated December 19, 2013). Response dated January 17, 2014. http://www.cpuc.ca.gov/environment/info/dudek/CNF/DR4_Response_1.17.14.pdf.



INTENTIONALLY LEFT BLANK

D.8 Fire and Fuels Management

This section addresses potential fire hazard impacts resulting from construction and operation of the proposed power line replacement projects along with the operation and maintenance activities proposed for authorization under the MSUP. Section D.8.1 provides a description of the existing setting/affected environment for fire hazards in the project study area. Applicable regulations, plans, and standards are listed in Section D.8.2. An analysis of the SDG&E proposed project's impacts/environmental effects and discussion of mitigation measures are provided in Section D.8.3. Section D.8.4 provides an analysis of the U.S. Forest Service (Forest Service) proposed actions. Section D.8.5 discusses the Bureau of Indian Affairs (BIA) proposed action and additional project alternatives are described in Section D.8.6. The No Action Alternative is discussed in Section D.8.7, and the No Project Alternative is described in Section D.8.8. Section D.8.9 provides mitigation monitoring, compliance, and reporting information. Section D.8.10 addresses residual effects of the project. The references cited in this section are provided in Section D.8.11.

D.8.1 Environmental Setting/Affected Environment

Methodology and Assumptions

As wildfire-related impacts require analysis of a larger area than that associated with a given project, including up to several miles beyond SDG&E's proposed project's immediate footprint and influence area, this analysis encompasses the power line replacement projects' study area, as identified in Figure B-1. Information utilized for specific fire-related risk assessment was based on limited site visits and extensive review of aerial images, vegetation (fuels) coverage maps, wildfire history and frequency data (FRAP 2013), fire hazard severity zone data (FRAP 2013), fire threat data (FRAP 2013), and U.S. Geological Survey (USGS) 7.5-minute quadrangles. Additionally, a review of previously prepared environmental documents including SDG&E's *Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California, Revised Plan of Development* (SDG&E 2013) the *Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and Proposed Land Use Amendment for the Sunrise Powerlink Project* (CPUC and BLM 2008), the *Final Environmental Impact Report/Environmental Impact Statement for the East County Substation, Tule Wind, and Energia Sierra Juarez Gen-Tie Projects* (CPUC and BLM 2011), and the *Final Initial Study and Mitigated Negative Declaration for San Diego Gas & Electric Company Tie-Line 637 Wood-to-Steel Project* (CPUC 2014) was conducted to support preparation of this section.

Review of available information necessary to analyze overall fire risk includes: California Department of Forestry and Fire Protection's (CAL FIRE's) Fire and Resource Assessment Program (FRAP) maps and datasets (FRAP 2013); the Forest Service Cleveland National

Forest (CNF) *Land and Resource Management Plan, Part 2* (Forest Service 2005a), the *Biological Technical Report for SDG&E Company Electric Safety and Reliability Plan Project* (Chambers Group 2012); the 2010 California Fire Code; the 2010 California Building Code (Chapter 7A); the 2011 County of San Diego Consolidated Fire Code; the *County of San Diego Guidelines For Determining Significance and Report Format and Content Requirements for Wildland Fire and Fire Protection* (County of San Diego 2010a); and the 2010 San Diego County *Multi-Jurisdictional Hazard Mitigation Plan* (County of San Diego 2010b).

D.8.1.1 General Overview

The CNF includes a variety of fuel types, including areas of woodland and forest. These fuels influence fire ignitions and spread. The dense stands of trees (timber fuels), combined with several years of below normal rainfall, have resulted in an average white fir mortality of 50% on the CNF, with some areas reaching 90% mortality (Forest Service 2012). In areas dominated by pine trees, bark beetles are attacking residual forests resulting in a continual cycle of tree mortality (Forest Service 2005a). High tree mortality in pine and fir-dominated stands has resulted in an unnatural accumulation of overstory surface fuels. Concurrently, an increased density of young shade-tolerant trees has formed in the understory of such stands and can act as ladder fuel that may result in surface fire transition to crown fire (Forest Service 2012). Another pest affecting forest systems on the CNF is the goldspotted oak borer (GSOB; *Agrilus auroguttatus*), which was detected in San Diego County in 2002. GSOB has contributed to the mortality of more than 80,000 oak trees over approximately 4,900 square kilometers (3,044 square miles) within San Diego County, and the infested area continues to grow as GSOB populations increase and spread (CISR 2013). As a result of increased tree mortality and heavy understory fuel loads, many of the forested areas in the MSUP/Power Line Replacement study area are being replaced with chaparral and scrub vegetation after a wildfire.

The shrub-dominated plant communities associated with SDG&E's proposed project area are typically dominated by chaparral species. This fuel type, particularly old chaparral, is highly flammable. Adaptations to the local dry, Mediterranean climate include specialized roots, stems, and leaves. The latter two become available fuels of importance and contribute to the intensity of wildfire. For example, chaparral leaves are coated with ether extractives, such as oils, fats, terpenes, and waxes. The extractive content is highest during fall (the height of fire season in the study area) and lowest during the spring. Additionally, the amount of moisture in chaparral communities is lowest in the fall. These qualities make Southern California chaparral some of the most volatile wildfire fuels in the United States (Forest Service 2012).

Grassland fuels ignite and burn more readily than the forest and shrub communities. Grass fires are characterized as having lower fire intensity and a faster rate of spread than fires burning in shrub and forest fuel types.

Additionally, the fire environment in the study area is considered one of several areas that are classified as “wildfire corridors” because a large portion of the fuel bed has not burned in 40 years or more (SanGIS 2011). With the ratio of dead to live fuels gradually increasing with age, a parallel increase in fire intensity is expected. In chaparral types, for example, the larger proportion of dead plant material, the more vigorously fires burn. Typically, the dead fraction increases with the age of the chaparral (Biswell 1989). At 20 years of age, the dead ratio is about 20%; at 30 years, 30%; at 40 years, 40%; and at 50 years, 45% to 50%. The age of the fuel beds in the study area range from 20 to 40+ years. Therefore, vegetation conditions for chaparral (fuel type and age class) within the study area can be characterized as being supportive of high-intensity surface fires with a high resistance to control.

Based on Fire Hazard Severity Zone (FHSZ) mapping data (FRAP 2013), the proposed power line replacement projects would be located primarily within a Very High FHSZ, with some smaller portions located in areas classified as High FHSZ or Moderate FHSZ. CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire state and includes classifications for State Responsibility Areas (SRAs), Local Responsibility Areas (LRAs), and Federal Responsibility Areas (FRAs). Fire hazard measurements take into account the following elements: vegetation, topography, weather, crown fire production, and ember production and movement. The Very High Fire Hazard Severity designation can be attributed to a variety of factors including highly flammable, dense, drought-adapted chaparral vegetation, seasonal, strong winds; and a Mediterranean climate¹ that results in vegetation drying during the months most likely to experience Santa Ana winds. Santa Ana winds are winds originating from the Great Basin that create extreme fire weather conditions characterized by low humidity, sustained high speeds, and extremely strong gusts. Santa Ana winds typically blow from the northeast over the Peninsular Range. As the air is forced through coastal mountain passes, wind speeds of 40 miles per hour (mph) can be maintained for hours with gusts from 70 to 115 mph possible (Schroeder et al. 1964). On February 15, 2013, a 91 mph gust was recorded at the SDG&E Sill Hill weather station, near TL626 (Weather Underground 2013). Winds can exceed 100 mph, particularly near the mouth of canyons oriented along the direction of airflow; this situation can lead to serious fire suppression problems, resulting in temporary closure of sections of main highways (BLM 2007). Figure D.8-1, Fire Hazard Severity Zone Map, identifies the CAL FIRE Fire Hazard Severity Zone designations in the study area.

¹ Weather patterns are typical of Southern California with a Mediterranean climate consisting of mild wet winters and warm to hot, dry summers.

Topography

In general, central and eastern San Diego County and southern Orange County include terrain that is favorable to wildfire spread including steep slopes, ravines, mountains, and valleys. Dominant topographical features include the Palomar, Cuyamaca, and Laguna mountains of the Peninsular Range in San Diego County, as well as Lucas and San Juan canyons in Orange County. Topography in the study area varies from relatively flat pasturelands to steep, rocky cliffs in higher elevation mountain areas. The elevation within the study area ranges from 1,030 to 6,100 feet.

Fire History

Regional fire history information can provide an understanding of fire frequency, fire type, the most vulnerable project areas, significant ignition sources, and other information relevant to understanding the fire and fuels environment in an area. Fire history information is a useful tool for predicting where wildfires tend to burn, and there have been numerous recorded wildfires in the vicinity of the study area. Fire history data was obtained from CAL FIRE's FRAP database (FRAP 2013). FRAP has been working cooperatively with the Forest Service to compile a seamless inventory of fire data throughout California (Iberdrola Renewables 2010); therefore, the FRAP data set includes the CNF fire history records. Fire history records document nearly 900 wildfires within the study area between 1910 and 2012 (FRAP 2013).² Wildfires excluded from the FRAP data set (less than 10 acres in size) also occur in the study area. Due to suppression efforts or other site-specific, weather, or environmental variables, these fires do not grow to a size to be included in the FRAP database. Nevertheless, their presence is an important component of the fire history in the study area. Based on historic fire incident records for all agencies, a total of 5,547 vegetation fires occurred in CAL FIRE's San Diego Unit between 1998 and 2008 (CAL FIRE 2014a). During this same period, 174 fires were recorded in the FRAP database (3% of total fires recorded), indicating that small fires are a common occurrence in the region and can occasionally grow into large fires and that fire suppression efforts in the San Diego Unit have been successful in keeping the majority of vegetation fires under 10 acres in total size.

² Fire history records are derived from polygon geographic information system (GIS) data from CAL FIRE's FRAP, which includes data from CAL FIRE, Forest Service Region 5, the Bureau of Land Management (BLM), the National Park Service (NPS), contract Counties, and other agencies. The data set is a comprehensive fire perimeter GIS layer for public and private lands throughout the state and covers fires 10 acres and greater between 1878 and 2012.

While burning has occurred throughout the study area, higher burn frequencies are evident in the San Diego River watershed, the Temescal Creek watershed, and the San Miguel Mountain/Lyon Peak area. Based on a review of the fire history information, average fire return interval for the power line replacement projects study area is less than 1 year, with many fires having occurred within the same year. Average fire return interval for large fires (>15,000 acres) in the study area is 4 years, with intervals ranging from 0 (multiple fires in the same year) to 17 years (FRAP 2013).

Major Wildfires

As discussed in the 2010 *Multi-Jurisdictional Hazard Mitigation Plan* prepared by San Diego County’s Office of Emergency Services, wildland fires have prompted five Proclaimed States of Emergency, and wildland–urban interface fires have prompted three Proclaimed States of Emergency within the County between 1950 and 2007 (County of San Diego 2010b). The worst wildfires in the County’s history occurred in October 2003 and again in October 2007. The 2007 fires included the Witch Creek Fire along with six other smaller fires that burned throughout the County resulting in the burn over of 369,000 acres of land, 2,670 structures, 239 vehicles, 2 commercial properties, and subsequent costs exceeding \$1.5 billion. The Witch Creek Fire was the largest of the October 2007 wildfires and burned a total of 197,990 acres, surpassing the 1970 Laguna Fire (174,158 total acres burned), and becoming the largest power line-caused wildfire in the state (CAL FIRE 2014b). The wildfire started in Witch Creek Canyon near Santa Ysabel and quickly spread to urbanized areas to the west. The 2007 wildfires in San Diego County were responsible for 10 civilian deaths, 23 civilian injuries, and 89 firefighter injuries (County of San Diego 2007). The second worst wildland fire season occurred during October 2003 and included the Cedar, Paradise, Otay, and Roblar fires. The 2003 fires burned a total of over 390,000 acres of land and 3,241 structures, and resulted in 16 deaths (CAL FIRE 2003). Major contributing factors to the extreme wildfires in 2003 and 2007 were regional drought, high temperatures, and strong Santa Ana winds (County of San Diego 2010b). Table D8-1 presents wildfires in excess of 15,000 acres within the study area between 1910 and 2012.

**Table D.8-1
Wildfires Larger than 15,000 within the Proposed MSUP/PTC
Power Line Replacement Projects Study Area**

Fire	Date	Acres Burned	Fire Cause
Vail Fire	July 1989	15,808	Unknown/Unidentified
Palomar Fire	October 1987	16,100	Debris
Otay No. 322 Fire	October 1996	16,562	Campfire
Horse Fire	July 2006	16,677	Campfire
Unnamed Fire	1947	17,156	Unknown/Unidentified

**Table D.8-1
Wildfires Larger than 15,000 within the Proposed MSUP/PTC
Power Line Replacement Projects Study Area**

Fire	Date	Acres Burned	Fire Cause
Guejito Fire	October 1993	17,820	Power Line
Coyote Fire	July 2003	18,704	Lightning
Ortega Fire	October 1993	21,011	Miscellaneous
Unnamed Fire	1929	22,336	Miscellaneous
Unnamed Fire	1967	29,083	Miscellaneous
Unnamed Fire	1929	30,494	Miscellaneous
Otay Fire	October 2003	44,725	Miscellaneous
Outside Origin No. 42 Fire	November 1956	46,602	Miscellaneous
Unnamed Fire	1928	48,612	Miscellaneous
Poomacha Fire	December 2007	49,390	Miscellaneous
Paradise Fire	November 2003	56,427	Arson
Pines Fire	July 2002	61,690	Power Line
Unnamed Fire	1913	62,426	Unknown/Unidentified
Conejos Fire	August 1950	62,849	Miscellaneous
Unnamed Fire	1928	62,967	Miscellaneous
Unnamed Fire	1944	64,419	Miscellaneous
Steward Fire	1958	68,105	Unknown/Unidentified
Harris Fire	November 2007	90,728	Unknown/Unidentified
Laguna Fire	October 1970	174,158	Power Line
Witch Creek Fire	October 2007	197,990	Power Line
Cedar Fire	October 2003	280,278	Equipment Use

Source: FRAP 2013.

Fires Caused by Power Lines

Power lines of different voltages may cause fires in different ways. Due to system components, distribution and transmission lines are susceptible to different wildfire-causing events. For example, distribution lines are mounted with devices (transformers and capacitors), some of which include internal oils that can explode and ignite nearby vegetation. Also, fallen or wind-blown tree limbs and debris is more likely to come into contact with distribution lines because these lines are spaced much closer together than transmission lines and are typically closer to the ground. Arcing (which occurs when electrons are able to jump a gap in a circuit) from a single conductor to ground through vegetation contact can occur on power lines of all voltages, but generally the distance to the ground of conductors on all facilities limits the potential for this event to occur (arcing between conductor phases is more likely to occur) (CPUC and BLM 2008). Of the various voltage lines, 69-kilovolt (kV) transmission lines can be subject to conductor-to-conductor contact when high winds force two conductors on a single pole to

oscillate so excessively that they come in contact with one another (also known as “mid-line” slap) (CPUC and BLM 2008). Nearby vegetation can catch fire from sparks resulting from conductor-to-conductor contact. Arcing occurring at line faults can also occur during high winds or when vegetation comes into contact with the lines. The use of automatic line fault reclosers can increase ignition potential if the lines are reenergized without proper inspection and repair. Maintenance activities can also inadvertently result in fires on transmission lines of any voltage, depending on the specific components of the system in question. Although power line structures (including wood and steel poles and steel lattice structures) are designed to retain their structural integrity in high-wind environments, high winds can (in rare cases) blow over these structures. When such an event occurs, the protection and control systems of power lines systems are designed to safeguard against the threat of wildland fire by shutting off power immediately, thereby disrupting electrical flow along the line (CPUC and BLM 2008). This approach, however, does not always work as designed, and sparks generated prior to power shut down can ignite nearby vegetation.

Small- and medium-voltage power line ignitions caused by high winds were responsible for four of the largest fires recorded in California between 1923 and 2007: the Witch Creek Fire (which eventually merged with the Guejito Fire) (2007), the Campbell Complex (1990), the Laguna Fire (1970), and the Clampitt Fire (1970). Both the Witch Creek and Laguna Fires occurred within SDG&E territory. In 2007, the Witch Creek Fire and the smaller Rice Fire (which burned approximately 9,500 acres) were ignited by an SDG&E distribution line failure during windy conditions. According to a report prepared by the California Public Utilities Commission’s (CPUC’s) Consumer Protection and Safety Division, the Witch Creek Fire was caused by conductor contact on an SDG&E 69 kV transmission line during Santa Ana wind conditions and the Rice Fire was caused by a tree limb falling and coming into contact with an SDG&E 12 kV conductor during Santa Ana wind conditions (CPUC 2008). The 2007 Guejito Fire (which merged with the Witch Creek Fire) was caused by contact between a Cox Communications’ lashing wire and an SDG&E 12 kV conductor during Santa Ana wind conditions. In all cases, the Consumer Protection and Safety Division found that the responsible party was in violation of CPUC General Order 95, Rule 31.1 (CPUC 2008). General Order 95, Rule 31.1 is discussed in Section D.8.2.

In addition to high winds and vegetation maintenance violations, contact between large birds and power lines and gunshots fired at power line hardware can also result in wildfires. Fire can result from birds coming into contact with two closely spaced conductors, resulting in an unintended electrical arc or “flashover” (CPUC and BLM 2008). Bird-related flashovers, which are more common on lines where conductors are positioned close together and can hence be contacted by outstretched wings, can result in fires if the feathers of an electrocuted bird catch fire and come into contact with ground vegetation. Wider spacing of conductors minimizes the possibility of

this type of flashover; therefore, the risk of flashover decreases with increasing voltage as higher-voltage lines are required to be spaced at greater intervals. Additionally, protective covers on the conductors where they attach to poles minimizes bird electrocution and associated flash over. Regarding gun shots, it is common in remote areas for vandals to shoot at power line components, including ceramic insulators. Lower-voltage lines are more susceptible to damage from gun shots and possess a greater wildfire potential when compared to higher-voltage lines. The support structures associated with lower-voltage lines are shorter than those associated with higher-voltage lines, making insulators and conductors placed on lower-voltage lines easier targets for vandals. Similarly, the structural integrity of steel conductors associated with higher-voltage lines is greater than the integrity afforded to similar hardware located on lower-voltage lines, resulting in a less dramatic response to being hit by bullets and resulting in lower occurrences of vandalism.

As previously discussed, inadequate maintenance practices around power lines and associated structures can also result in wildfires, such as when the structural integrity of the power lines or structures is degraded and trees or vegetation are allowed to grow to the point of contacting hardware, such as conductors. California Public Resources Code 4293 establishes the minimum clearance requirements for overhead power lines. These requirements are discussed in Section D.8.2.

Environmental Effects of Past Fires

Although wildfire can benefit natural ecosystems that have evolved with occasional burning and that benefit from the stimulation of growth through the reproduction of plants and wildlife habitat, fire can also be detrimental to biological and other natural resources, such as air quality and water quality.

Biological Resources

Flora

Grassland communities, usually non-native grasses, will readily establish after wildfires in chaparral and scrub communities. With repeated burning at short intervals of up to several years, it is possible to convert chaparral and scrub to non-native grasslands. Chaparral and scrub vegetation communities will typically re-sprout and absent fire or other disturbances will return to pre-fire conditions. Chaparral communities also tend to repopulate many of the San Diego County forest types following stand-replacing fire. The chaparral may establish for the first several years after the fire event, whereupon the tree cover will begin to establish (Forest Service 2000a). Because vegetation communities can be converted following fire, these changes in dominant vegetation communities can drastically affect plant and animal habitat and can affect the prevalence of special-status species.

Fauna

Generally speaking, fires injure or kill a relatively small proportion of wild animals. For example, birds and larger mammals can flee wildfire, and small mammals and reptiles can seek refuge in subterranean burrows. Habitat changes resulting from fires have a much more profound impact on faunal populations and communities than does the fire itself. Fires can result in short-term increases in vegetation productivity and the availability and nutrient content of forage and browse (Forest Service 2000b). These increases can in turn lead to increases in herbivore populations. However, any increase in population size is highly dependent upon the population's ability to survive in the post-fire environment (Forest Service 2000b). In general, fires that devastate a landscape featuring many shrubs and trees reduce habitat cover for species requiring cover and increase habitat for species (such as raptors) that prefer open areas (Forest Service 2000b).

Air Quality

Carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons, and other constituent materials are all present in wildfire smoke. The specific composition of smoke depends largely on the fuel type (vegetation types contain different amounts of cellulose, oils, waxes, and starches, which when ignited produce different compounds). In addition, hazardous air pollutants and toxic air contaminants, such as benzene and formaldehyde, are also present in smoke. However, the principal pollutant of concern from wildfire smoke is particulate matter. In general, particulate matter from smoke is very small in size and can be inhaled into the deepest recesses of the lungs, presenting a serious health concern (Lipsett 2008).

Factors including weather, stage of fire, and terrain can all dictate fire behavior and the impact of smoke on the ground. Wind, for instance, generally results in lower smoke concentrations because wind causes smoke to mix with a larger volume of air. Regional weather systems, such as the Santa Ana winds of Southern California, on the other hand, can spread fire quickly and result in numerous devastating impacts. The Santa Ana winds effectively work to reverse the typical onshore flow patterns and blow winds from dry, desert Great Basin areas westward toward the coast. As a result, coastal communities can be impacted by fires originating in inland areas (Lipsett 2008).

Large quantities of pollutants can be released by wildland fires over a relatively short period of time. Air quality during large fires can become severely hazardous and can remain impaired for several days after the fire is ignited.

Water Quality

Fire can impact water quality by increasing potential for erosion and sedimentation in areas where vegetation has been burned, resulting in increased water temperature through removal or drastic modification of shade-providing trees and vegetation. Water chemistry can also be altered through the introduction of pollutants and chemical constituents. Aquatic environments may also be impacted through the introduction of fire retardant chemicals used during firefighting activities.

Erosion and Sedimentation

Watersheds severely burned by wildfire are vulnerable to accelerated rates of soil erosion and can experience large amounts of post-fire sediment deposits. Increases in post-fire suspended sediments in streams and lakes (in addition to possible increases in turbidity) can result from erosion and overland flow, channel scouring, and creep accumulations in stream channels after an event (Forest Service 2005b). While less is known regarding the effect of fire on turbidity, it has been observed that post-fire turbidity levels in stream water are affected by the steepness of the burned watershed (Forest Service 2005b). The little data available regarding post-fire turbidity levels has indicated that U.S. Environmental Protection Agency (EPA) water quality standard for turbidity can be exceeded after a fire event (Forest Service 2005b).

Water Temperature

When fire burns stream bank vegetation and shade trees, water temperature can rise, which in turn can lead to thermal pollution, which leads to increased biological activity in the stream. Increased activity levels place a greater demand on the dissolved oxygen content of the water and can affect the survivability and sustainability of aquatic populations and communities (Forest Service 2005b). Water temperature increases up to 62° Fahrenheit (°F) have been recorded in stream flows following fires in which the stream bank vegetation was burned (Forest Service 2005b).

Water Chemistry

Ash deposits generated by a fire can affect the pH of water immediately after the event, potentially increasing to levels that violate water quality standards. In addition, increases in the pH of nearby soil can also cause increases in stream flow pH (Forest Service 2005b). Dissolved nitrogen levels can increase after fires as a result of accelerated mineralization and nitrification (dissolved nitrogen is commonly studied as an indicator of fire disturbance), but these levels do not typically exceed established water quality standards (USDA 2005b). Dissolved phosphorous, sulfur, chloride, and total dissolved solids levels can increase after a fire, but studies have shown that these increases typically do not result in violation of drinking water quality standards (Forest Service 2005b).

Fire Retardant

The use of fire retardants to protect communities, sensitive resources, or other assets has proven highly effective, but it can have a direct effect on aquatic environments. The use of ammonium-based retardants can affect water quality and, in some instances, they can be toxic to aquatic biota (Forest Service 2005b). Nitrogen-containing retardants can potentially affect drinking water quality, and retardants containing sodium ferrocyanide (YPS) can potentially be lethal for aquatic organisms (Forest Service 2005b).

Assets at Risk

CAL FIRE's Fire and Resource Assessment Program (FRAP) prepared the document entitled *California's Forests and Rangelands: 2010 Assessment*. This document satisfies 2008 Federal Farm Bill provision that each state conduct an assessment of forest resources, which is intended to identify key issues facing each state and requires the delineation of spatial areas called Priority Landscapes. Priority Landscapes are intended to focus investments and other programs to address issues identified in the assessment. Priority Landscape data sets related to fire include an evaluation of fire risk as related to carbon, community water, ecosystem health, forest economics, human infrastructure, range economics, recreation and open space, and wildlife.

Highly-ranked Priority Landscapes within SDG&E's proposed project study area related to wildfire include carbon sequestration potential, community water supply, ecosystem health, human infrastructure (including transmission lines), range economics, recreation, and wildlife (FRAP 2010). Utilizing the Priority Landscape data set, CAL FIRE's San Diego Unit has identified three Priority Landscapes that have little or no recorded fire history in the past 30 years (CAL FIRE 2013). Two of these areas are within SDG&E's proposed project study area and identified assets at risk from wildfire include watershed value (supporting Lake Morena, Barrett Reservoir, Loveland Reservoir, Vail Lake, and Lake Henshaw), public recreational trails, camp grounds, scenic overviews, and cultural values based on numerous Indian reservation and historical sites.

Communities at Risk

In addition, assets at risk from wildfire include all structures within approximately 40 miles to the west of SDG&E's proposed project area, stretching to the urbanized areas of Valley Center, Escondido, Ramona, Santee, El Cajon, Chula Vista, and some coastal cities. This area includes terrain, vegetation, and climate that have historically supported wildfire spread. Some of the area has no recorded fire history; other areas haven't burned for 40 years, since the Laguna Fire in 1970, indicating that fuels may be heavy and would readily spread fire. The result of an ignition under worst-case conditions would be potential wildfire threat to all structures and communities to the west of SDG&E's proposed project area. Within SDG&E's proposed project study area,

rural development is typical with several nearby communities being listed as a federally recognized community at risk of wildfire, including: Alpine, Borrego Springs, Boulder Oaks, Cameron Corners, Descanso, Dulzura, Guatay, Harbison Canyon, Jamul, Julian, Lakeside, Mesa Grande, Mount Laguna, Pine Valley, Ramona, Ranchita, San Pasqual, Santa Ysabel, and Warner Springs (California Fire Alliance 2013).

From a regional wildfire perspective, SDG&E's proposed project is located in an area designated by the County of San Diego as within wildfire corridors with continuous fuel beds, based on fuel ages, topography, and climate. Based on this designation, it is feasible that communities and individual structures within SDG&E's proposed project study area may be impacted should a wildfire ignite from a proposed project-related source.

Firefighting

United States Forest Service

Wildland fire suppression responsibility on federal and private lands within the congressional boundary of the CNF is provided by the Forest Service. In central San Diego County, Forest Service firefighting facilities can be co-located with firefighting operations of other jurisdictions such as CAL FIRE and San Diego County to share resources (CPUC and BLM 2008). The joint CAL FIRE and Forest Service Firefighting Air Attack Base in Ramona (operated May through November) is an example of shared resources. During extended wildland fire attack, federal resources can be mobilized throughout the country to support these incidents. CNF resources include the following:

- 28 fire engine companies
- Three "Hotshot" handcrews
- One medium-sized helicopter
- One type-1 helicopter (heli-tanker)
- Access to air tankers jointly used by Angeles National Forest and San Bernardino National Forest.

Bureau of Land Management

Power lines associated with SDG&E's proposed project traverse Bureau of Land Management (BLM)-administered lands in two locations, including a 1.3-mile segment associated with TL629 and a 4.9-mile segment associated with TL6923. These areas are located in the southern portion of SDG&E's proposed project within the Hauser Mountain area (TL6923) and the Morena Valley areas (TL629). The BLM maintains several programs in the disciplines of fire suppression, preparedness, fuels management, prevention and education, community assistance,

and protection and safety, all of which are intended to safely protect the public, natural landscape, and wildlife habitat from fire-related damage (BLM 2009). The various programs of the BLM are discussed briefly as follows.

- The Fire and Aviation Directorate Program is tasked with providing aerial firefighting support for fires occurring on BLM lands. Aircraft used by the BLM are BLM-owned and contracted.
- The Community Assistance and Protection Program includes mitigation and prevention, education, and community outreach. Experts within this program are typically deployed to fire-prone areas before a fire starts to educate the community regarding fire management and suppression activities.
- The Fuels Management Program focuses on protecting communities and natural resources while providing for local economic opportunities. Through this program, fuels are effectively managed through collaboration with local communities and agencies in the form of community wildfire protection programs, fuels treatment, biomass utilization, and local fuels management contracts.

It should be noted that in addition to maintaining these programs, the BLM provides funding for firefighting efforts (through Community Assistance Grants) in the rural areas of San Diego County. In the past, funding has been used for wildfire training to local volunteers responsible for responding to fires on BLM lands. In San Diego County, BLM lands are under a Direct Protection Agreement with CAL FIRE, which specifies that CAL FIRE provides fire response resources and is responsible for conducting investigations regarding the recovery of fire suppression costs (CPUC and BLM 2008).

SDG&E's proposed project is located within the California Desert District and in the El Centro Fire Management Zone of the BLM. The current Fire Management Plan (FMP) for the California Desert District was developed in 1998 and was designed around a "fire management zone" concept based on distinct vegetation communities and the strategies for fire suppression within each of those communities. The intent was for objectives and constraints identified for fire-suppression activities to be developed by Land Use Plan decisions associated with resources. The FMP categorized the proposed project area as Fire Management Zone (FMZ) 6, which is a CAL FIRE Direct Protection Area. This means that CAL FIRE is the primary fire protection agency for BLM-managed lands in the area (CPUC and BLM 2008).

The primary objective of CAL FIRE's fire policy is to suppress all vegetation fires of 10 acres or less upon initial attack, based on "assets at risk analysis," which favors protection of structures in the wildland urban interface. CAL FIRE and BLM operate under a Cooperative Fire Protection Plan that implores CAL FIRE to consider BLM's resource protection standards in order to develop the least-cost/least-damaging suppression strategy possible. During wildfire incidents on

BLM lands, BLM is required to send a resource advisor to work directly with the CAL FIRE incident commander to ensure resource values are fully protected or at least mitigated. This requirement is applicable to all vegetation fires occurring in the proposed project area (CPUC and BLM 2008).

California Department of Forestry and Fire Protection – San Diego Unit

CAL FIRE's San Diego Unit is responsible for fire protection services on all SRA lands within San Diego and Imperial Counties. The San Diego Unit is responsible for 1.2 million acres of SRA for wildland fire protection. For coordinated wildland fire protection services (exchanging acres) the San Diego Unit has fire suppression responsibility for 1.4 million acres of State Direct Protection Area (CAL FIRE 2013). The San Diego Unit is well equipped for firefighting activities in the region. Equipment and personnel at the disposal of the San Diego Unit include the following:

- 18 CAL FIRE fire stations, 26 CAL FIRE fire engines
- 14 local government stations with 18 fire engines
- 24 local government Volunteer Fire Stations with 53 fire engines
- 4 CAL FIRE/California Department of Corrections and Rehabilitation Conservation Camps with 19 handcrews
- One CAL FIRE/Forest Service Air Attack Base equipped with one CAL FIRE OV-10 Air Attack Aircraft, two CAL FIRE S-2T Air Tankers, and one Forest Service Type 2 Helicopter
- Two CAL FIRE/San Diego Sheriff Type 2 Helicopters
- Four CAL FIRE bulldozers
- One CAL FIRE/Forest Service Interagency Command Center, Monte Vista Headquarters.

The San Diego Unit is headquartered at 2249 Jamacha Road in El Cajon.

California State Parks

State wilderness and recreational areas in the general vicinity of SDG&E's proposed project include Cuyamaca Rancho State Park, Anza-Borrego Desert State Park, and Palomar Mountain State Park, although only Cuyamaca Rancho State Park includes components of SDG&E's proposed project. Cuyamaca Rancho State Park is located in east central San Diego County spanning the crest of the Cuyamaca Mountains in the Peninsular Ranges. Anza-Borrego Desert State Park reaches from the higher elevations of the Peninsular Ranges in eastern San Diego County to the desert floor on the western edge of Imperial County. Palomar Mountain State Park

is located at the peak of Palomar Mountain, to the east of Pauma Valley. State Parks are SRA lands; therefore wildland fire protection is provided by CAL FIRE.

County of San Diego

Fire protection services within the County of San Diego are provided by various city and rural district fire departments. Fire protection resources are primarily dependent on locality and need. Incorporated cities typically have their own fire departments to provide fire services within their jurisdictional boundaries. Unincorporated areas of the County occur within SDG&E's proposed project area and San Diego Rural Fire Protection District (SDRFPD) provides fire services in both LRA and SRA. In SRA, CAL FIRE has the primary responsibility for suppressing wildfires. In addition to LRAs, County Service Areas have also been identified and services to these areas are typically provided by volunteer fire departments. FRAs are typically the responsibility of the Forest Service, but military and civilian departments on bases within these areas provide services. In addition, there are numerous Fire Safe Councils—volunteer groups that meet with fire agencies to assist with fuel-reduction strategies and fire safety education.

The unincorporated area of the County of San Diego has a Cooperative Fire Protection Agreement with CAL FIRE for fire and emergency services in the SDRFPD. CAL FIRE responds to wildland fires, structure fires, floods, hazardous material spills, swift water rescues, civil disturbances, earthquakes, and medical emergencies.

The San Diego County Fire Authority (SDCFA) was created by the County Board of Supervisors in July 2008 to improve fire protection and emergency medical services in the region. The authority's goal is to unify the administrative support, communications, and training of 15 rural fire agencies and extend “around the clock” protection to 1.5 million acres of the unincorporated County that previously had either limited or part-time “on-call” protection by 2012. To date, SDCFA has purchased 46 pieces of fire apparatus, including 18 water tenders and 14 Type II engines for use by fire agencies in the unincorporated communities (SDCFA 2014).

Tribal Fire Departments

Several Indian reservations are located within or adjacent to SDG&E's proposed project area. A summary of firefighting resources for each reservation is provided below.

Campo Indian Reservation: The Campo Reservation Fire Protection District provides fire protection for the Campo Indian Reservation. District firefighting equipment includes three brush fire engines, one water tender, two utility vehicles, one truck, and one engine.

La Jolla Indian Reservation: The La Jolla Band maintains an all-volunteer fire department that responds to small fires on the reservation. If the volunteers are unavailable or a larger force is needed, the Lake Henshaw Department responds or the Rincon Reservation Fire Department responds. CAL FIRE provides emergency fire protection backup. The station's firefighting equipment includes one brush engine and one structure engine.

Pauma and Yuima Indian Reservation: The Pauma Reservation Fire Department is a 12-person, full-time professional fire department that primarily serves the Pauma Reservation and the 86,000-square-foot Pauma Casino. The Pauma Reservation Fire Department has mutual aid agreements with CAL FIRE and the Pala and Rincon Reservation Fire Departments. The department is augmented by reserve firefighters. Department firefighting equipment includes a Type 1 fire engine and a Type 3 brush fire engine.

Viejas Indian Reservation: The Viejas Fire Department consists of 20 professionally trained firefighters using one fire engine, one truck company, two ambulances, and other emergency equipment. The department provides emergency services to residents, visitors, and structures located on the 1,609-acre Viejas Reservation, including the Viejas Casino and Outlet Mall. In addition, the Viejas Fire Department provides aid to other departments in San Diego County, as well as to CAL FIRE and the Forest Service. The Viejas Fire Department is fully funded by the Viejas Tribal Government with revenues provided by Tribal Government Gaming.

D.8.1.2 Project-Specific Fire Environment – Proposed Power Line Replacement Projects

The fire environment, comprised of vegetation (fuels), weather, and topography, directly affects the potential risk of ignition and fire spread from project-related activities and infrastructure. The following provides the fire environment specific to each of the proposed power line replacement projects.

TL682

The right-of-way (ROW) of TL682 follows the San Luis Rey River through a steep, v-shaped canyon vegetated with oak woodlands and chaparral. Grasslands and pasturelands dominate the landscape near Lake Henshaw. Elevations range from 1,030 feet above mean sea level (amsl) in Pauma Valley to 2,836 feet amsl at the Warner Springs substation. Fuel beds in the canyon associated with the San Luis Rey River are between 20 and 40 years old. Vegetation conditions surrounding the ROW can be characterized as being supportive of high-intensity surface fires with a high resistance to control.

TL626

The ROW of TL626 traverses through valleys (Santa Ysabel, Paine Bottom, and Echo Valley), steep ridge tops and canyons (San Diego River and Temesal Canyon Creek) vegetated with oak savanna and woodlands, riparian forests, and chaparral. Elevations range from approximately 3,000 feet amsl to 3,800 feet amsl. Fuel beds along TL626 are less than 20 years old. Vegetation conditions surrounding the ROW of TL626 can be characterized as being supportive of moderate to high-intensity surface fires with a high resistance to control.

TL625

The ROW of TL625 traverses through valleys (Lyons Valley and Japatul Valley), along steep ridgelines, canyons, and the Cuyamaca Mountain Range which are vegetated with oak savanna and woodlands, riparian forests, chaparral, and grasslands. Elevations range from approximately 1,800 feet amsl to 3,500 feet amsl. Fuel beds along TL625 are primarily over 40 years old. Vegetation conditions surrounding the ROW of TL625 can be characterized as being supportive of high-intensity surface fires with a high resistance to control.

TL629

The ROW of TL629 traverses through valleys (Descanso, Pine, Cameron, and Miller valleys), over relatively steep ridgelines, and along a v-shaped canyon with Interstate 8 (I-8) running through it. Vegetative fuel types are primarily chaparral and oak savanna or oak woodlands. Elevations range from approximately 2,800 feet amsl to 4,000 amsl. Fuel beds along TL629 are primarily over 40 years old with some areas showing no record of historic fires. Vegetation conditions surrounding the ROW of TL629 can be characterized as being supportive of high-intensity surface fires with a high resistance to control.

TL6923

The ROW of TL6923 traverses over ridgetops, through valleys (Cameron Valley and Long Potrero) and steep canyons (McAlmond, Hauser, Rattlesnake, Cottonwood Creek) vegetated with oak woodlands, riparian forests, and chaparral. Elevations range from approximately 1,050 feet amsl to 3,100 feet amsl. In general, fuel beds along TL6923 are between 20 and 40 years old. Vegetation conditions surrounding the ROW of TL6923 can be characterized as being supportive of high-intensity surface fires with a high resistance to control.

C79

C79 begins at TL626 (elevation 3,803 feet amsl) and terminates at the top of Cuyamaca Peak (elevation 6,512 feet amsl). The ROW of circuit traverses along a ridgeline vegetated with

chaparral and coniferous forests. Fuel beds along the circuit ROW are less than 20 years old. Vegetation conditions surrounding the ROW of C79 can be characterized as being supportive of moderate to high intensity surface fires with the potential for crown fires in the coniferous forests and present a high resistance to control.

C78

The ROW of C78 traverses from Viejas Valley at 2,500 feet amsl along the lower slopes of Poser Mountain to Viejas Grade Road (3,257 feet amsl). Native grasslands and chaparral are found on the valley and hillside, respectively. Fuel beds along the circuit ROW are less than 20 years old. Vegetation conditions surrounding the ROW of C78 can be characterized as being supportive of moderate intensity surface fires with a moderate resistance to control.

C157

The ROW of C157 traverses through valleys and uneven terrain with steep drainages vegetated with chaparral and oak woodlands. Elevations range from 1,600 feet to 2,600 feet amsl. Native grasslands and chaparral are situated on the valley and hillside, respectively. Fuel beds along the circuit ROW are 20 to 40 years old. Vegetation conditions surrounding the ROW of C157 can be characterized as being supportive of high intensity surface fires with a high resistance to control.

C442

The ROW of C442 traverses along valleys and uneven terrain vegetated with chaparral, oak woodlands, and coniferous forests. Elevations range from 3,900 feet amsl to 4,100 feet amsl. Fuel beds along the circuit ROW are 40+ years old. Vegetation conditions surrounding the ROW of C442 can be characterized as being supportive of high intensity surface fires and the potential for crown fires in the coniferous forests with a high resistance to control.

C440

C440 begins at the Buckman Springs Substation (elevation 3,300 feet amsl) and continues along Sunrise Highway to Mount Laguna peak, terminating at the unincorporated community of Mount Laguna (6,100 feet amsl). The ROW of C440 traverses the base of Mount Laguna to the top with the slopes vegetated with chaparral at the lower elevations and coniferous forest at the higher elevations. Fuel beds along the circuit ROW are over 40 years old. Vegetation conditions surrounding the ROW of C440 can be characterized as being supportive of high intensity surface fires and the potential for crown fires in the coniferous forests with a high resistance to control.

C449

The ROW of C449 follows the terrain along Cottonwood Valley with an elevation around 3,100 feet amsl. Vegetative fuel types consist of oak savanna, oak woodlands, and chaparral. Fuel beds along the circuit ROW are between 20 to 40 years old. Vegetation conditions surrounding the ROW of the circuit can be characterized as being supportive of moderate to high intensity surface fires.

D.8.2 Applicable Regulations, Plans, and Standards

This section summarizes federal, state, and regional environmental regulations, plans, and standards applicable to SDG&E's proposed project in regards to fire and fuels management. In addition to the federal and state regulations identified, the TL682 and TL629 power line replacement projects may be subject to the BIA's policies and regulations and tribe-specific policies and plans.

D.8.2.1 Federal Regulations and Other Standards

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) requires utilities to adopt and maintain minimum clearance standards between vegetation and power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. California, for example, has adopted General Order 95 rather than the North American Electric Reliability Corporation (NERC) Standards as the electric safety standard for the state (CPUC and BLM 2008). FERC is not discussed further in this section, as compliance with state requirements will ensure that the federal requirements are met.

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides ("NFPA Documents"), are developed through a consensus standards development process approved by the American National Standards Institute (ANSI). This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or "codes" unless adopted as such or referenced as such by the California Fire Code or the Local Fire Agency.

- NFPA 10, Fire Extinguishers: A long-standing standard that specifies the types, sizes, rating, and locations for portable fire extinguishers. It also provides information on how to calculate the number and size of portable fire extinguishers needed.

- NFPA 11, Fire Fighting Foam (Low, Medium, and High Expansion Foam): NFPA 11 is a long-standing standard that provides recommendations for design and installation of firefighting foam systems and portable equipment. It also provides recommendations regarding calculating the amount of foam concentrate and solution needed on a flammable or combustible liquid fire.
- NFPA 30, Flammable and Combustible Liquids Code: This standard provides recommendations for storage, use, and handling of flammable and combustible liquids. It provides detailed information regarding tank storage, spacing, dispensing of liquids, portable containers, and other related operations. NFPA 30 is referenced by the California Fire Code.
- NFPA 70, National Electrical Code: NFPA 70 is the standard for the design and installation of electrical systems. It includes recommendations for various types of occupancies and also provides recommendations and criteria for the location and installation of “explosion proof” electrical systems.
- NFPA 497, Classification of Flammable Liquids, Gases, and Vapors, and for Electrical Area Installations in Chemical Process Areas: NFPA 497 is the standard that is utilized along with NFPA 70 to determine flammable gas, flammable liquid, and combustible liquid hazards and to recommend the areas that require explosion-proof electrical systems. It also sets forth the extent of the classified areas. Although the title says chemical process areas, it is used as a standard for explosion-proof electrical as it defines various risks and contains numerous diagrams to help the electrical system designer.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009, by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles:

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.

- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

The National Fire Plan was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurance for sufficient firefighting capacity in the future (Forest Service 2013). It is a long-term investment that will help protect natural resources in addition to communities. The plan is a long-term commitment based on cooperation and communication among federal agencies, states, local governments, tribes and interested publics. The Forest Service, U.S. Fish and Wildlife Service, the BIA, BLM, and National Park Service use the National Plan Operations and Reporting System to plan and report accomplishments funded by the National Fire Plan.

There are five key areas addressed under the National Fire Plan:

1. Firefighting and Preparedness
2. Rehabilitation and Restoration
3. Hazardous Fuels Reduction
4. Community Assistance
5. Accountability.

International Fire Code

Created by the International Code Council, the International Fire Code addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage (although not a federal regulation, but rather the product of the International Code Council). The International Fire Code places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the

International Fire Code uses a hazards classification system to determine the appropriate measures to be incorporated in order to protect life and property (often times these measures include construction standards and specialized equipment). The International Fire Code uses a permit system (based on hazard classification) to ensure that required measures are instituted.

International Wildland–Urban Interface Code

The International Wildland–Urban Interface (WUI) Code is published by the International Fire Code and is a model code addressing wildfire issues.

National Electric Safety Code 1977, 2006

The National Electric Safety Code covers basic provisions related to electric supply stations, overhead electric supply and communication lines, and underground electric supply and communication lines. The code also contains work rules for construction, maintenance, and operational activities associated with electric supply and communication lines and equipment. The code, which must be adopted by states on an individual basis, is not applicable in the State of California. As stated previously, the State of California has adopted its own standard (General Order 95) rather than a general national standard. The National Electric Safety Code is not discussed further.

North American Electric Reliability Corporation Standards

NERC is a nonprofit corporation comprising 10 regional reliability councils. The overarching goal of NERC is to ensure the reliability of the bulk power system in North America. To achieve its goal, NERC develops and enforces reliability standards; monitors the bulk power systems; and educates, trains, and certifies industry personnel (NERC 2013). In order to improve the reliability of regional electric transmission systems and in response to the massive widespread power outage that occurred on the Eastern seaboard in 2003, NERC developed a transmission vegetation management program that is applicable to all transmission lines operated at 200 kV and above to lower voltage lines designated by the Regional Reliability Organization as critical to the reliability of the electric system in the region. The plan, which became effective on April 7, 2006, establishes requirements of the formal transmission vegetation management program, which include identifying and documenting clearances between vegetation and any overhead, ungrounded supply conductors, while taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain and elevation, and the effects of wind velocities on conductor sway (NERC 2006). The clearances identified must be no less than those set forth in the Institute of Electrical and Electronics Engineers (IEEE) Standard 516-2003, Guide for Maintenance Methods on Energized Power Lines (NERC 2006).

Institute of Electrical and Electronics Engineers Standard 516-2003

The IEEE is a leading authority in setting standards for the electric power industry. Standard 516-2003, *Guide for Maintenance Methods on Energized Power Lines*, establishes minimum vegetation-to-conductor clearances in order to maintain electrical integrity of the electrical system.

USDA Forest Service Management Plans

There are no specific directions in the National Fire Plan, CNF Land Management Plan (Part 1), or CNF Fire Management Plan to special-use holders on their responsibilities for forest management activities. The primary goal of the CNF Land Management Plan (Part 2) is to enhance the sustainability and health of the National Forest. The strategic direction of these land management practices is outlined in Part 2 where varying management practices are focused within the WUI to reduce wildfire ignitions and large-scale damage due to catastrophic wildfires. The management plan focuses on the following:

- Fire Prevention
 - Prevent wildfire ignitions within the WUI
 - Continue to implement the Border Fire Prevention Program to reduce human caused wildfires related to immigration
 - Prohibit campfires outside of developed recreation areas
 - Implement activity restrictions and access to National Forest System lands dependent upon fuel and weather conditions and the availability of fire suppression resources.
- Direct Community Protection
 - Ongoing effort to reducing the amount of high to moderate fire risk areas within the WUI by mechanical or prescribed burning of hazardous fuels
 - Promote the removal of diseased and dying trees adjacent to structures and access/evacuation routes.
- Fire Suppression Emphasis
 - Improve wildland fire suppression capability within the WUI by promoting coordination with other fire agencies
 - During periods of limited firefighting resource availability, communities within the National Forest Direct Protection Area should be given highest priority for initial attack.
- Firefighter and Public Safety
 - Integrate fire management activities with other fire agencies in a cost-effective manner

- Conduct inspections that ensure defensible space requirements are met around structures within CNF jurisdiction
- Coordinate with local Fire Safe Councils to support evacuation and community fire protection plans.
- Fuelbreaks and Indirect Community Protection
 - Maintain system of fuel breaks to minimize fire size
 - Pre-plan fire suppression activities to avoid further disruption of sensitive areas and the spread of noxious weeds.

The project activity level (PAL) is a scientifically based system to regulate all industrial and contractual activities on National Forest System lands in California. The PAL is designed to reduce the risk of large damaging wildfires and the legal vulnerability of the agency, contractors, or permittees. The system is fire danger and climatology based, using Energy Release Components and Ignition Components to determine ratings. It provides a single decision support matrix for regulating industrial and service activities on the CNF.

Forest Service Special Use Permit Requirements

Forest Service special use permits require that permittees comply with all applicable federal, state, county, and municipal laws, regulations, and other legal requirements (Clause I F), keep the ROW clear of vegetation that may cause fires (Clause F-15), and prepare a Fire Control Plan (Clause F-20). Permittees have a general duty to protect all federal land and interest from damage, and are liable for all damage, including fire suppression costs, associated with the use and occupancy authorized by the permit (Clause IV F). Power line permits are classified as a high-risk use by Forest Service regulations (36 CFR 251.56(d)(2)) and are subject to strict liability requirements. The Forest Service would recover compensation for any damages with the assistance of the U.S. Justice Department.

The Forest Service has also adopted California Public Resource Code Sections 4292 and 4293, by Regional Forester Order, which incorporates the power line clearing requirements established by CAL FIRE and described in the following section in more detail. The rules established by CPUC General Order 95 would also apply to the permittee.

D.8.2.2 State Laws and Regulations

California Fire Code

The California Fire Code (CFC) is contained within Title 24, Chapter 9 of the California Code of Regulations (CCR). Based on the International Fire Code, the CFC is created by the California

Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the CFC and the California Building Code (CBC) use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

14 CCR 1250 et seq., Fire Prevention Standards for Electric Utilities, provides specific exemptions from electric pole and tower firebreak and electric conductor clearance standards, and it specifies when and where standards apply. Section 1254 of Title 14 presents guidelines for minimum clearance requirements around utility poles.

California Health and Safety Code

State fire regulations are established in Section 13000 of the California Health and Safety Code. The section establishes building standards, fire protection device equipment standards, high-rise building and childcare facility standards, interagency support protocols, and emergency procedures. Also, Section 13027 states that the state fire marshal shall notify industrial establishments and property owners having equipment for fire protective purposes of the changes necessary to bring their equipment into conformity with, and shall render them such assistance as may be available in converting their equipment to, standard requirements.

California Public Utilities Commission General Order 95: Rules for Overhead Transmission Line Construction

General Order (GO) 95 was adopted in 1941 and updated in January 2012. Additionally, on February 5, 2014, CPUC decision [D.14-02-015](#) revised GO 95 to incorporate new and modified rules to reduce the fire hazards associated with overhead power lines and aerial communication facilities in close proximity to power lines. GO 95 is the key standard governing the design, construction, operation, and maintenance of overhead electric lines in the state. It includes safety standards for overhead electric lines, including minimum distances for conductor spacing and minimum conductor ground clearance, standards for calculating maximum sag, electric line inspection requirements, and vegetation clearance requirements.

Rule 31.2, Inspection of Lines, requires that lines be inspected frequently and thoroughly to ensure they are in good condition, and that lines temporarily out of service be inspected and maintained as to not create a hazard.

Rule 35, Tree Trimming, defines minimum vegetation clearance around power lines. At the time of trimming, Rule 35 guidelines require the following:

- 4-foot radial clearances for any conductor of a line operating at 2,400 volts or more, but less than 72,000 volts
- 6-foot radial clearances for any conductor of a line operating at 72,000 volts or more, but less than 110,000 volts
- 10-foot radial clearances for any conductor of a line operating at 110,000 volts or more, but less than 300,000 volts (this would apply to the project)
- 15-foot radial clearances for any conductor of a line operating at 300,000 volts or more.

Rule 48, Ultimate Strength of Materials, requires that structural members and their connection be designed and constructed so that the structures and parts thereof will not fail or be seriously distorted at any load less than their maximum working loads, which includes loads resulting from wind exposure. This rule was updated based on the February 5, 2014, CPUC decision.

Under California Public Utilities Code Section 1708.5, interested persons are permitted to petition the CPUC to adopt, amend, or repeal a regulation. In response to the 2007 wildfires in San Diego County, on November 6, 2007, SDG&E submitted a petition to the CPUC requesting that the CPUC issue an Order Instituting Rulemaking to determine whether GO 95 should be amended or if more rules should be adopted to address disaster preparedness, including damage from Santa Ana wind-driven firestorms (CPUC and BLM 2008). According to SDG&E, the petition requested that the CPUC consider several items, including the following:

- Operating rural electrical lines differently during severe fire weather
- Mitigating potential hazards associated with rural lines including undergrounding line, using steel poles in place of wood, and shortening spans between poles
- Better coordinating disaster management efforts among agencies, municipalities, local jurisdictions, and utilities
- Maintaining electrical line ROWs free of vegetation
- Adopting a state-wide Disaster Management Plan.

On February 5, 2014, in this rulemaking, CPUC decision [D.14-02-015](#) revised GO 95 to incorporate new and modified rules to reduce the fire hazards associated with overhead power lines and aerial communication facilities in close proximity to power lines.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/

commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the CCR and California Public Resources Code. Public Resources Code 4291 states generally that any person operating any structure located on brush-covered lands or land covered with flammable material is required to maintain defensible space around the structure. 14 CCR 1254 identifies minimum clearance requirements required around utility poles. In SRAs within the jurisdiction of CAL FIRE, the Fire Safety Inspection Program is an important tool for community outreach and enforcement of state fire codes.

CAL FIRE also inspects utility facilities and makes recommendations regarding improvements in facility design and infrastructure. Joint inspections of facilities by CAL FIRE and the utility owner are recommended by CAL FIRE so that each entity may assess the current state of the facility and successfully implement fire prevention techniques and policies. Violations of state fire codes discovered during inspections are required to be brought into compliance with the established codes. If a CAL FIRE investigation reveals that a wildfire occurred as a result of a violation of a law or negligence, the person responsible can be charged criminally, civilly, or both (CAL FIRE n.d.). In cases where a violation of a law or negligence has occurred, CAL FIRE has established the Civil Cost Recovery Program, which requires parties liable for wildfires to pay for wildfire-related damages.

In the section of Southern California where SDG&E's proposed project would be located, the power line hazard reduction standards are applicable year-round due to the scope of the fire season. More detailed descriptions of the applicable codes and regulations and images of exempt and non-exempt power line structures may be found in the *CAL FIRE Power Line Fire Prevention Field Guide* (CAL FIRE 2008).

California Public Resources Code

These regulations are discussed in further detail as follows:

- **Public Resource Code 4291** requires a reduction of fire hazards around buildings, requiring 100 feet of vegetation management around all buildings, and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction.
- **Public Resources Code 4292** states a that a minimum firebreak of 10 feet in all directions from the outer circumference of such pole or tower be established around any pole which supports a switch, transformer, lightning arrester, line junction, or end or corner pole. All vegetation shall be cleared within the firebreak.

- **Public Resources Code 4293** establishes the minimum vegetation clearance distances (between vegetation and energized conductors) required for overhead transmission line construction. Minimum clearances are discussed as follows:
 - A minimum radial clearance of 4 feet shall be established for any conductor of a line operating at 2,400 or more volts but less than 72,000 volts.
 - A minimum radial clearance of 6 feet shall be established for any conductor of a line operating at 72,000 or more volts but less than 110,000 volts.
 - A minimum radial clearance of 10 feet shall be established for any conductor of a line operating at 110,000 or more volts but less than 300,000 volts.
 - A minimum radial clearance of 15 feet shall be established for any conductor of a line operating at 300,000 or more volts.

Specific requirements applicable to the construction and operation of SDG&E's proposed project include those from Public Resources Code, Division 4, Chapter 6:

- **Section 4427** – Operation of fire-causing equipment
- **Section 4428** – Use of hydrocarbon-powered engines near forest, brush, or grass-covered lands without maintaining firefighting tools
- **Section 4431** – Gasoline-powered saws, etc.; firefighting tools
- **Section 4442** – Spark arrestors of fire prevention measures, requirements, exemptions.

Fire Hazard Severity Zones

CAL FIRE mapped FHSZs in San Diego County based on fuel loading, slope, fire weather, and other relevant factors as directed by Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189. FHSZs are ranked from moderate to very high and are categorized for fire protection within an FRA, SRA, or LRA under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively.

California Strategic Fire Plan

The 2010 Strategic Fire Plan for California is the statewide plan for adaptive management of wildfire as a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE. The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression and fire prevention efforts. The key goals include:

1. Improved availability and use of information on hazard and risk assessment

2. Land use planning, including general plans, new development, and existing developments
3. Shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans
4. Establishing fire resistance in assets at risk, such as homes and neighborhoods
5. Shared vision among multiple fire protection jurisdictions and agencies
6. Levels of fire suppression and related services
7. Post-fire recovery.

While the plan puts emphasis on pre-fire adaptive management of risk, including measures such as fuel breaks, defensible space, and other fuel reduction strategies, it does not contain any specific requirements or regulations but rather acts as an assessment of current fire management practices and standards and makes recommendations on how best to improve the practices and standards in place (CAL FIRE 2013).

California Code of Regulations Title 14 Section, Sections 1252, 1253, and 1254

14 CCR Sections 1252 and 1253 state that in San Diego County, power line hazard reduction standards are applicable year round. Power line hazard reduction strategies include pole brush clearing; in southeastern San Diego County, CAL FIRE is responsible for inspecting local implementation of these strategies.

14 CCR Section 1254 states that the fire break minimum clearance requirements of California Public Resources Code 4292 are applicable within an imaginary cylindrical space surrounding each pole or tower on which a switch, fuse, transformer, or lightning arrester is attached. The radius of the cylinder is 3.1 meters (10 feet) measured horizontally from the outer circumference of the specified pole or tower with height equal to the distance from the intersection of the imaginary vertical exterior surface of the cylinder with the ground to an intersection with a horizontal plane passing through the highest point at which a conductor is attached to such pole or tower. Flammable vegetation and materials located wholly or partially within the firebreak space shall be treated as follows:

- At ground level: remove flammable materials, including but not limited to, ground litter, duff, and dead or desiccated vegetation that will allow fire to spread
- From 0 to 2.4 meters (0 to 8 feet) above ground level: remove flammable trash, debris, or other materials, including grass, herbaceous, and brush vegetation. All limbs and foliage of living trees shall be removed up to a height of 2.4 meters (8 feet)

- From 2.2 meters (8 feet) to horizontal plane of highest point of conductor attachment: remove dead, diseased, or dying limbs and foliage from living sound trees and any dead, diseased, or dying trees in their entirety.

CAL FIRE Civil Cost Recovery Program

The California Legislature has ruled that since wildland fires cost taxpayers millions of dollars per year, taxpayers should not be responsible for costs associated with suppressing fires caused by an act of human carelessness. The CAL FIRE Civil Cost Recovery Program was established to recover firefighting costs when the fires are a result of people (or entities) violating the law or being negligent in their actions. For overhead electric lines, these violations are generally related to non-compliance with vegetation clearance requirements.

Examples of cost recovery related to transmission lines include the following (CAL FIRE n.d.):

- In 1996, Southern California Edison was billed \$7.9 million for fire suppression costs for the Calabasas Fire. A settlement was negotiated for \$6.55 million just prior to trial in 2003. CAL FIRE determined that the fire was caused when a eucalyptus branch was bent by the wind into a lightning arrester.
- The largest amount ever billed by CAL FIRE to date was to Pacific Gas & Electric (PG&E) in 1990 for \$8.2 million. The Campbell Fire burned over 125,000 acres and destroyed 27 structures in Tehama County. CAL FIRE determined that the fire was caused by a tree limb that made contact with a 500 kV power line. PG&E had not maintained the 10-foot clearance around its power line as required by law. PG&E eventually agreed to a negotiated settlement of \$5 million.

D.8.2.3 Regional Policies, Plans, and Regulations

Eastern San Diego County Resource Management Plan

Section 2.8 of the Eastern San Diego County Resource Management Plan establishes goals, objectives, and management actions associated with wildland fire management on BLM-managed lands. The following goals and objectives are applicable to the power line replacement projects:

- WFM-01** Protect human life (both firefighters and public) and communities, property, and the natural resources on which they depend. Firefighter and public safety are the highest priority in all fire management activities.

- WFM-02** Reduce hazardous fuels around communities at risk within the wildland–urban interface using mechanical, manual, biological, and prescribed fire treatments, where applicable.
- WFM-03** Appropriate management response for resource benefits will range from full suppression to the appropriate strategy to safely contain and control wildland fires in the planning area.
- WFM-04** Maintain natural biological processes through the use of fire as a natural disturbance.

CAL FIRE San Diego Unit Strategic Fire Plan

The San Diego Administrative Unit of CAL FIRE has developed a Strategic Fire Plan for San Diego County, encompassing 1.2 million acres of SRA within San Diego and Imperial counties. The Strategic Fire Plan identifies 53 communities within San Diego County that are potentially at risk of wildland fires (CAL FIRE 2013). The Strategic Fire Plan does not contain any specific requirements; rather, it assesses current fire-management policies, analyzes assets within San Diego County at risk of damage due to wildfire, and makes recommendations on how best to protect San Diego County’s natural and man-made resources from wildfire damage. The Plan also evaluates Priority Landscape data in identifying at risk resources within the County, which include water (soil erosion after wildfires damage water flumes and storage facilities), structures, wildlife, air quality, cultural resources, recreation areas, and power and communication infrastructure.

The Strategic Fire Plan also provides a description of various programs and projects intended to reduce the occurrence of large damaging fire. These programs/projects include Battalion Pre-fire plans, fuel breaks, defensible parameters around communities, clearances around structures, and a diverse mosaic of fuels and continuity that would help existing policies and strategies achieve success when combating fires (CAL FIRE 2013).

Southwest Powerlink Memorandum of Understanding

A fire prevention Memorandum of Understanding (MOU) was agreed upon by SDG&E and CAL FIRE for vegetation management activities associated with the Southwest Powerlink (SWPL). The MOU states that vegetation management within the SWPL easement areas is mutually beneficial as reducing vegetation would minimize wildfire potential and improve the reliability and integrity of the transmission line while at the same time improve the safety of firefighters working near the transmission line. The MOU specifies vegetation management activities that are the responsibility of CAL FIRE and those that are the responsibility of SDG&E. For example, CAL FIRE is responsible for notifying SDG&E in advance of prescribed burns located near SWPL facilities and

structures, and for monitoring the fire danger in the area and notifying SDG&E when conditions are too hazardous to conduct vegetation management activities. SDG&E, on the other hand, is responsible for notifying CAL FIRE on days where the SWPL's reliability is critical and prescribed burns should not take place adjacent to the SWPL, as well as for filing the appropriate paperwork with CAL FIRE when requesting CAL FIRE assistance regarding vegetation management activities within the SDG&E easement. SDG&E only participates as a partner with CAL FIRE when such clearing would mutually benefit both parties.

County of San Diego General Plan Public Safety Element

The following policies included in the General Plan's Public Safety Element are applicable to SDG&E's proposed project:

- **Policy 1:** The County shall seek to reduce fire hazards to an acceptable level of risks.
- **Policy 2:** The County will consider constraints in terms of fire hazards in land use decisions. Within designated areas where population or building densities may be inappropriate to the hazards present, measures will be taken to mitigate the risk of life and property loss.
- **Policy 3:** The County will support the planning and coordinate implementation of a countywide fuel break and fuel management system.

County of San Diego Code of Regulatory Ordinances

The following sections of the County Code of Regulatory Ordinances would be applicable to SDG&E's proposed project:

Title 6, Division 8, Chapter 4: Removal of Combustible Vegetation and Other Flammable Materials Ordinance No. 9633 (Sections 68.401–68.406)

The Removal of Combustible Vegetation and Other Flammable Materials Ordinance establishes that combustible vegetation; dead, dying or diseased trees; green waste; rubbish; and other materials on private property can create fire hazards resulting in conditions that are potentially injurious to the health, safety, and welfare of the public. The ordinance goes on to state that combustible vegetation and other materials are public nuisances that must be abated, and the requirements for abatement must be enforced in all County Service Areas and in the unincorporated areas of the County outside of a fire protection district or municipal water district. Fire protection districts and municipal water districts have either adopted their own combustible vegetation abatement programs or have adopted the County ordinance.

Clearance requirements and combustible vegetation removal protocols are established in Sections 68.404 and 68.406 of the ordinance. Section 68.404 states that “no responsible party shall permit on a parcel any accumulation of combustible vegetation; dead, dying or diseased trees; green waste; rubbish; or other flammable materials within thirty (30) feet of the property line when such accumulation endangers property or the health, safety, or welfare of residents of the vicinity” and that “no responsible party shall permit on a parcel any accumulation of combustible vegetation, dead, dying or diseased trees, green waste, rubbish, or other flammable materials within ten (10) feet of each side of the improved width of highways, private roads and driveways” (County of San Diego 1985). Section 68.406 requires that combustible vegetation removal be conducted so as to leave the plant root structure intact to stabilize the soil and prevent erosion, and that areas where combustible vegetation removal has occurred may be replanted with fire-resistant shrubbery and planting materials (County of San Diego 1985). The ordinance also requires that vegetation removal be conducted in conformance with all federal, state, and local environmental laws and regulations.

Title 9, Division 6, Chapter 1: County Fire Code (Ordinance No. 10148, Section 96.1.4903)

Section 96.1.4903 states that the County Department of Planning and Land Use or the applicable fire protection district may require an applicant for a parcel map, specific plan, or major use permit located in a WUI fire area to prepare and submit a Fire Protection Plan (FPP) as part of the approval process. According to the County Fire Code, the WUI fire area is a geographic area identified by the state as a “Fire Hazard Severity Zone” (FHSZ; the power line replacement projects would be located primarily within a Very High FHSZ). The FPP, which requires that the topography, combustible vegetation, and fire history (among other factors) be considered during development of the plan, addresses water supply, vehicular and emergency apparatus access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management.

County of San Diego 2011 Consolidated Fire Code

The first consolidated fire code was created in 2001 through a collaboration between the County of San Diego and local fire protection districts and essentially assured consistency between County and local district fire ordinances for the purpose of public health and safety. The consolidated code includes minimum requirements for access, water supply, distribution, construction type, fire protection systems, and vegetation management within the County. The code also regulates hazardous materials and hazardous substance releases. The County’s 2011 Consolidated Fire and County Building Codes, as a package, were recently certified by the State Board of Forestry and Fire Protection as meeting the 14 CCR SRA Fire Safe Regulations

requirements, and authorizing its use in lieu of Title 14. The County is obligated to enforce the Code, and therefore, it must be applied to this project where applicable.

Border Agency Fire Council

Formally created during the 1996 fire season, the Border Agency Fire Council (BAFC) consists of 38 member organizations representing fire protection, law enforcement, legislators, health care workers, natural resource managers, and elected officials in the United States and Mexico. The member organizations meet quarterly during the winter and every 6 to 8 weeks during the fire season at the CAL FIRE San Diego Unit headquarters in El Cajon. The BAFC promotes fire prevention and suppression strategies within the border area in order to prevent wildfires and minimize potential damage. Due to collaborative efforts of the member organizations, the BAFC has been successful at altering the natural environment to allow for better access for emergency services while at the same time respecting the natural values of the border area (BAFC 2012). In addition, the BAFC has been at the forefront in establishing and maintaining the International Fuel Break at Otay Mountain, which seeks to protect life and property in nearby communities, improve endangered species habitat, enhance national security as a result of open areas, and maintain areas around the Border Fence (completed in 2009) (BAFC 2012). The member organizations of the BAFC include the BLM, CAL FIRE, San Diego Fire and Rescue, SDRFPD, and SDG&E. The southern portions of SDG&E's proposed project are located within the BAFC's Area of Concern (BAFC 2012).

San Diego County Multi-Jurisdictional Hazard Mitigation Program

Required by the federal Disaster Mitigation Act of 2000, the Multi-Jurisdictional Hazard Mitigation Plan is a comprehensive countywide plan that identifies potential risks associated with natural and man-made disasters and discusses ways to minimize resulting damage. Many purposes are served by the document including enhancing public awareness, creating a decision tool for management, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, providing inter-jurisdictional coordination, and achieving regulatory compliance (County of San Diego 2010b). The plan also identifies goals, objections, and actions for each participating jurisdiction in the County.

Numerous natural and man-made hazards including coastal storms, dam failure, earthquake, flood, and structure/wildland fires are profiled in the plan. Each profiled disaster is discussed in terms of the nature of the disaster, the history of the disaster in San Diego County, and the location and extent/probability of occurrence and magnitude. Many of these are ranked differently by individual jurisdictions. However, all jurisdictions rated wildfire as a high (based on the firestorms of 2003 and 2007) probability of occurrence and a severe impact on the communities in their jurisdictions. The plan identifies nine general goals and numerous objectives for the County of San Diego, including the following applicable goals:

- **Goal 2:** Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to wildfire.
- **Goal 4:** Increase public understanding and support for effective hazard mitigation.
- **Goal 5:** Improve hazard mitigation coordination and communication with federal, state, local, and tribal governments.
- **Goal 6:** Promote disaster resistant existing and future development.
- **Goal 7:** Build and support local capacity and commitment to continuously become less vulnerable to hazards.
- **Goal 10:** Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to severe weather.

San Diego Fire Chiefs Association Defensible Space Memorandum of Understanding

In response to the Harmony Grove Fire in 1997, the San Diego County Fire Chiefs' Association and the Fire District's Association of San Diego County entered into an MOU with the California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game), U.S. Fish and Wildlife Service (USFWS), and CAL FIRE (San Diego Fire Chiefs' Association 2007). The removal of flammable vegetation within 100 feet of any structure and 30 feet from any roadway without a biological survey is permitted by the MOU. The intent of the MOU was to establish guidelines by which CAL FIRE, cities, and fire districts can continue to protect lives and property from the threat of fires by requiring the flammable vegetation abatement pursuant to applicable state and local regulations. The MOU is also intended to establish a cooperative mechanism through which the USFWS and CDFW may "assess, minimize, and help account for potential adverse impacts to sensitive species and habitats resulting from vegetation abatement activities" (San Diego County Fire Chiefs' Association 2007).

D.8.3 Environmental Effects

D.8.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

The CEQA criteria and guidelines described below are also used as indicators of adverse effects under NEPA. Based on Appendix G of CEQA Guidelines (14 CCR 15000 et seq.), project-related wildfire impacts would be considered significant if any of the following were to occur:

- Construction and operation activities associated with the proposed project along with operation and maintenance activities under the MSUP would significantly increase the probability of a wildfire resulting in damaging impacts to communities, firefighter health and safety, and/or natural resources.

- The presence of overhead power lines significantly increases the probability of a wildfire resulting in damaging impacts to communities, firefighter health and safety, and/or natural resources
- The presence of the project creates obstructions to fire suppression efforts, resulting in damaging impacts to communities and/or natural resources
- Activities associated with project construction, operation, or maintenance result in a fuel vegetation matrix with an increased ignition potential and rate of fire spread.

Under NEPA, the effects of the alternatives are based on the overall risk of power line-related wildfires.

D.8.3.2 Applicant Proposed Measures

Applicant Proposed Measures (APMs) APM HAZ-01 through APM HAZ-06 were proposed by SDG&E to reduce impacts related to wildland fire. The following summarizes each APM.

- **APM-HAZ-01:** Provides for carrying emergency fire suppression equipment, conducting worker-awareness trainings, restrictions on smoking and idling vehicles, and construction restrictions during Red Flag Warnings (RFWs).
- **APM-HAZ-02:** Requires implementation of Electric Distribution Operation 3017 to maintain fire safety while meeting all operational and service requirements.
- **APM-HAZ-03:** Requires clearing of dead and decaying vegetation from work or storage areas, staging areas, stringing sites, and access roads.
- **APM-HAZ-04:** Provides for fire suppression tools to be kept within 50 feet of work activities.
- **APM-HAZ-05:** Provides for daily monitoring of weather and fire danger.
- **APM-HAZ-06:** Prevents construction in areas affected by a RFW or Project Activity Level E designation.

Section B.7.1 of the EIR/EIS provides additional detail regarding these APMs.

D.8.3.3 Direct and Indirect Effects

Impact FF-1 Increase the probability of a wildfire due to construction, operations, and maintenance activities

Construction, operations, and maintenance activities associated with SDG&E's proposed project could ignite the on-site vegetation and start a wildfire by introducing potential sources of ignition.

Construction Phase

Project construction would result in up to 132 workers per day (estimated peak) occurring in the project area for the estimated 5-year construction period. The following construction activities may result in ignition sources:

- Earth-moving equipment—heated exhausts or sparks may result in ignition
- Chainsaws—may result in vegetation ignition from overheating, spark, fuel leak, etc.
- Vehicles—heated exhausts in contact with vegetation may result in ignition
- Helicopters—heated exhausts in contact with vegetation may result in ignition, potential for helicopters to clip existing power or transmission lines resulting in sparks and ignition potential
- Welders—open heat source may result in metallic sparks coming into contact with vegetation
- Wood chippers—include flammable fuels and hydraulic fluid that may overheat and spray onto vegetation with a hose failure
- Compost piles—large piles that are allowed to dry and are left on site for extended periods may result in combustion and potential for embers landing in adjacent vegetation
- Grinders—sparks from grinding metal components may land on a receptive fuel bed
- Torches—heat source, open flame, and resulting heated metal shards may come in contact with vegetation
- Dynamite/blasting—if blasting is necessary, may cause vegetation ignition from open flame, excessive heat, or contact of heated material on dry vegetation.

Operation and Maintenance Phase

Operation and maintenance of the proposed power line replacement projects, as well as ongoing operation and maintenance activities for all other SDG&E electric facilities proposed to be covered under the MSUP would include the presence of humans and vehicles as well as heat- and spark-generating equipment similar to those currently used by SDG&E. While these activities would not increase in duration or intensity with implementation of SDG&E's proposed project, they would constitute potential ignition sources.

Maintenance activities that may result in wildfire ignition include regular vegetation maintenance, requiring motorized hand tools or other small machinery, including string trimmers, brush cutters, chain saws, and chippers, to minimize the potential for fire. Electrical transmission line maintenance would include four-wheel-drive vehicles, helicopters, boom

trucks, line trucks, and water trucks, and as needed, heavier equipment necessary for accessing the poles and attached components. Existing road maintenance activities may include use of graders, excavators, dozers, and rollers.

Operation and maintenance activities would also include scheduled, routine operational maintenance, including monitoring and maintenance of facilities and equipment. Monitoring is likely to include routine visual and infrared aerial inspections of project infrastructure via helicopter or ground-based inspections of underground components and overhead structures. Additionally, vegetation inspections will be conducted to ensure proper vegetation clearances are maintained in accordance with PRC Section 4292 and CPUC GO 95 requirements. Finally, special inspections and patrols will occur on a non-routine, as-needed basis. These regular maintenance activities would reduce the ignition potential during operation and maintenance activities.

SDG&E's proposed project also includes the following removal and undergrounding components which will also reduce the ignition potential during operation and maintenance activities.

TL626: Removal of road segment between poles Z372130 and Z372131 would reduce ignition potential during the operations and maintenance phase.

TL629: Undergrounding 792-foot segment would reduce ignition potential during the operations and maintenance phase.

C79: Removal of 2.2 miles of overhead circuit and 4.2 miles of existing access roads would reduce ignition potential during the operations and maintenance phase.

C78: Relocation of a portion of overhead circuit to along Viejas Grade Road would reduce ignition potential during the operations and maintenance phase.

C442: Removal of 0.6-mile road segment would reduce ignition potential during the operations and maintenance phase.

C440: Removal of 7.14 miles of overhead circuit and 4.0 miles of existing access roads would reduce ignition potential during the operations and maintenance phase.

C449: Removal of 5.63 miles of overhead circuit and 2.4 miles of existing access roads would reduce ignition potential during the operations and maintenance phase.

Wildfire Risk Evaluation

Construction, operations, and maintenance activities associated with SDG&E's proposed project would be located adjacent to native Southern California fuels and/or other combustible materials found in the project area. Regardless of the fuel density and load, these various ignition sources have the capacity to ignite nearby vegetation, resulting in wildfire, especially during weather events that include low humidity and high wind speeds. Exacerbating this situation is data indicating that human activity (including accidental ignitions from various construction and transmission line related activities) is the leading cause of wildfire damage with regard to burned acreage in Southern California (Keeley and Fotheringham 2003).

Any of the proposed construction, operations, and maintenance activities may result in vegetation ignitions given the presence of flammable fuels within the proximity of SDG&E's proposed project components. As previously described, regional assets at risk include carbon sequestration potential, community water supply, ecosystem health, human infrastructure (including transmission lines), range economics, recreation, and wildlife (FRAP 2010). Additionally, assets at risk from wildfire include all structures within approximately 40 miles to the west of SDG&E's proposed project area, which may be subject to wildfire resulting from an ignition under worst-case weather conditions.

The potential risk of wildfire ignition and spread associated with construction, operations, and maintenance of SDG&E's proposed project can be managed and pre-planned so that the potential for vegetation ignition is reduced. In addition, pre-planning and personnel fire awareness and suppression training not only results in lower probability of ignition, but also in higher probability of fire control and extinguishment in its incipient stages. Data indicate that 95% of all wildfire ignitions are controlled during initial attack (Smalley 2008). Data also indicates that 90% of the acres burned in Southern California occur during RFW periods, while 90% of wildfires occur during non-RFW periods and burn only 10% of the total burned acres.

SDG&E has proposed APM HAZ-01 through APM HAZ-06 (see Section B.7.1 of this EIR/EIS, and summary of measures, below) to reduce impacts related to wildland fire hazards due to operations and maintenance activities. Implementation of APM HAZ-01 would provide for worker-awareness trainings that cover fire prevention and safety, restrictions on smoking and idling vehicles, and construction restrictions during RFWs, as outlined in SDG&E's Electric Standard Practice 113-1 (2012). It will also provide training for practices to reduce the likelihood of fire ignition and to quickly extinguish ignitions that may occur. Further, it provides for coordination with fire agencies and restricts construction activities during the days when fire spread would be most likely (RFW periods), among others. Implementation of APM HAZ-03 would provide for clearing of dead and decaying vegetation from work or storage

areas, staging areas, stringing sites, and access roads prior to starting construction activities. Additionally, implementation of APM HAZ-06 would prevent construction activity in areas affected by a RFW or PAL E designation. While implementation of APM HAZ-01 through APM HAZ-06 would reduce the potential for construction, operations, and maintenance activities to ignite a wildfire, this impact is considered adverse and significant. Therefore, Mitigation Measures (MM) MM FF-1 and MM FF-2, which provide clarification and supersede APM HAZ-01, have been provided to further mitigate the increased probability of igniting a wildfire due to construction or maintenance activities of SDG&E's proposed project. With implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, impacts would be less than significant under CEQA (Class II).

Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance, but would not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger.

MM FF-1 Develop and Implement a Construction Fire Prevention/Protection Plan. SDG&E shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the U.S. Forest Service, Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of lead agencies. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the commenting agencies prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following:

- Procedures for minimizing potential ignition
 - Vegetation clearing
 - Fuel treatment area establishment
 - Parking requirements
 - Smoking restrictions
 - Hot work restrictions
- Red Flag Warning restrictions
- Fire coordinator role and responsibility

- Fire suppression equipment on site at all times work is occurring
- Requirements of Title 14 of the California Code of Regulations, 918 “Fire Protection” for the private land portions
- Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice 113-1 (July 2012)
- Emergency response and reporting procedures
- Emergency contact information
- Worker education materials; kick-off and tailgate meeting schedules
- Other information as provided by responsible and commenting agencies (as appropriate for each project).

Additional restrictions will include the following:

- During the construction phase of the project, the applicant shall implement ongoing fire patrols. The applicant shall maintain fire patrols during construction hours and for 1 hour after end of daily construction and hotwork.
- Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), the applicant shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the Forest Service, BLM, BIA, SDRFPD, SDCFA, and CAL FIRE.
- During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs), and when the Forest Service Project Activity Level (PAL) is “E” on Cleveland National Forest (CNF) (as appropriate), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under a Hot Work Procedure. The Hot Work Procedure will be in compliance with the applicable sections in NFPA 51-B “Fire prevention during welding, cutting, or other hot work” and CFC Chapter 26 “Welding and other Hot Work.”
- The applicant and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF.
- All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and

equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition.

- Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crew members as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.
- Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 feet of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan.

SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the responsible fire agencies for comment a minimum of 90 days prior to the start of any construction activities. The final plan will be approved by the responsible lead agencies with input from the fire and permitting agencies, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities. All construction work on the proposed power line replacement projects shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.

MM FF-2

Develop and Implement an Operations and Maintenance Fire Prevention/Protection Plan. The plan will address all SDG&E electric facilities proposed to be covered under the Master Special Use Permit (MSUP) both on and off the Cleveland National Forest (CNF) and will be implemented during all operational maintenance work associated with the project for the life of the project, including construction operations. This plan will satisfy the requirements of the SDG&E Project-Specific Fire Plan, as identified in SDG&E's Electric Standard Practice 113-1. Important fire safety concepts that shall be included in the plan and make it an essential overall mitigation measure are the following:

- Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans)
- Fuel treatment area maintenance
- When vegetation work will occur (prior to any other work activity)
- Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread
- Coordination procedures with fire authority
- Integration of the project's Construction Fire Prevention/Protection Plan content
- Personnel training and fire suppression equipment
- Red Flag Warning restrictions for operation and maintenance work
- Fire safety coordinator role as manager of fire prevention and protection procedures, coordinate with fire authority and educator
- Communication protocols
- Incorporation of responsible agency review and approved Response Plan mapping and assessment.
- Other information as provided by responsible and commenting agencies, as applicable.

SDG&E will provide a draft copy of the Operations and Maintenance Fire Prevention/Protection Plan to the responsible fire agencies for comment a minimum of 90 days prior to the completion of the first project segment. The final plan will be approved by the responsible lead agencies prior to

energizing the project and provided to SDG&E for implementation during all operations and maintenance activities.

Impact FF-2 Increase the probability of a wildfire due to the presence of project facilities including overhead power lines

The proposed power line replacement project components, along with other SDG&E electric facilities proposed to be covered under the MSUP, include the following ignition sources similar to those currently operated by SDG&E:

- Transformers—Pole-mounted transformers are subject to occasional failure and explosion, sending sparks and hot materials out in all directions.
- Power and distribution lines—Energized lines may arc or may be downed during high winds causing ignition of vegetation.
- Poles/conductors—Poles/conductors may be struck by lightning, may invite bird roosting, and may become targets for backcountry shooters, all of which can result in sparks and vegetation ignition.

Power and distribution lines can start fires in a number of ways, including the following:

- Uncleared vegetation, especially trees, coming into contact with lines or conductors
- Sparks (from exploding hardware such as transformers) coming into contact with vegetation
- Wind-blown debris coming into contact with hardware such as transformers and conductors
- Conductor-to-conductor contact
- Transmission poles blown down by high winds
- Dust or dirt buildup on power line hardware
- Aircraft or helicopter, or attached features such as fire-fighting water buckets, coming into contact with power line hardware and support structures
- Wildlife coming into contact with power line and/or associated hardware.

As discussed below while these ignition sources would continue to be present, the probability that they would ignite a wildfire would decrease with implementation of SDG&E's proposed project.

The proposed power line replacement projects would replace existing wood pole structures with new steel pole structures, in addition to minor relocation, removal, and undergrounding,

generally within the same ROW alignment as the existing power lines. Replacement of existing fire-susceptible wooden poles with 2,104 fire-resistant steel poles will result in a fire-hardened alignment that would protect proposed project facilities in the event of a wildland fire. Wooden poles supporting power lines are susceptible to damage and deterioration from fire, woodpeckers, termites, and weather, including wind and/or lightning. The existing wood poles are also natural products with inherent variability in the material strength properties. The proposed new steel poles are not susceptible the same level of deterioration and would remain standing during wildfire conditions due to construction with fire-resistant material. The new steel poles are also engineered with minimal variability in design and strength, resulting in improved system reliability and safety.

Proposed steel poles are, in general, designed to withstand extreme wind-loading, compared with existing wood poles, which were designed for historical wind-loads. During Santa Ana conditions, as the air is forced through coastal mountain passes, wind speeds of 40 mph can be maintained for hours with gusts from 70 to 115 mph possible in the project study area (Schroeder et al. 1964). On February 15, 2013, a 91 mph gust was recorded at the SDG&E Sill Hill weather station, near TL626 (Weather Underground 2013). Winds can exceed 100 mph, particularly near the mouth of canyons oriented along the direction of airflow (BLM 2007). Therefore, in some instances, especially along TL626 in the area of Sill Hill, standard steel pole design parameters may be exceeded. However, as discussed in Section D.8.2.2, State Laws and Regulations, SDG&E is required to design electric overhead lines in accordance with safety requirements of the CPUC's GO 95. GO 95 was adopted in 1941 and last updated in January 2012. Additionally, on February 5, 2014, CPUC decision 14-02-015 revised GO 95 to incorporate new and modified rules to reduce the fire hazards associated with overhead power lines and aerial communication facilities in close proximity to power lines. GO 95 is the key standard governing the design, construction, and maintenance of overhead electric lines in the state. It includes safety standards for overhead electric lines, including minimum distances for conductor spacing and minimum conductor ground clearance, standards for calculating maximum sag, electric line inspection requirements, and vegetation clearance requirements. Additionally, GO 95 identifies material's strength requirements (Rule 48) and maximum working load conditions (Rule 43). As noted, SDG&E is required to design the project components in accordance with CPUC's GO 95.

Existing wood poles are also susceptible to failure or pole fires resulting from lightning strikes, whereas the proposed steel poles will reduce the potential of failure due to a lightning strike. While the likelihood of pole failure resulting from a lightning strike is reduced with steel poles, steel poles increase the risk of lightning strikes, due to their composition and increased height. However, as stated above, SDG&E will be required to design electric overhead lines in accordance with safety requirements of the CPUC's GO 95 and implement proper grounding procedures and installation of proper grounding devices to minimize this risk and increase system reliability.

Additionally, the replacement of existing aluminum or copper conductors with aluminum-clad, steel-supported conductors will increase the safety of the lines, as well as improve efficiency and response times when repairs to the 69 kV power lines are required. The larger, stronger conductors will be significantly more resistant to potential damage from extreme wind conditions, lightning strikes, and tree-line contact in comparison with the existing conductors. The proposed conductors will also reduce the potential for line breakages or other failures that could result during hazardous weather conditions.

Under SDG&E's proposed project, the new pole heights are also generally increased which will allow for increased conductor spacing and appropriate ground clearances. The increased height and spacing provides for greater distances between conductors and reduces risk of conductor to conductor contact, as well as risk of contact with vegetation or human activity on the ground (SDG&E 2013). The overall distance of overhead power lines will also be reduced from 145.9 miles to 129.5 miles as a result of undergrounding portions of the system. Finally, proposed multi-stranded steel core conductors would remain in service even if several steel strands are damaged, including by foreign objects or gunshots, which have been the cause of damaged conductors in the backcountry. These design components of the proposed system would reduce fire risk in comparison with the existing system by enhancing the safety and reliability of the power line system during extreme weather conditions.

Power line relocation and undergrounding activities would remove 16.43 miles of existing 12 kV overhead power lines and replace/relocate them with 11.81 miles of new underground lines. Undergrounding activities will also allow for the removal of 11.2 miles of existing power line access roads. Approval of the proposed power line replacement projects would decrease the quantity and spatial extent of project facilities (roads) and overhead power lines in the project study area, thereby decreasing the quantity and extent of potential ignition sources.

As discussed above, the proposed power line replacement projects would replace fire susceptible wood poles with fire resistant steel poles, install new heavier and stronger conductors and increase spacing resulting in a fire-hardening alignment. Based on the conservative nature of G.O 95, operation of the proposed electrical lines, poles, and associated hardware would not pose a significant hazard precipitated by high winds or fires initiated by downed conductors or lightning. In addition to the proposed fire hardening of the various alignments, the project includes a net reduction in overhead lines which will further reduce the potential for wildfires. Therefore, the presence of the proposed power line replacement projects along with other SDG&E electric facilities proposed to be covered under the MSUP would not increase the probability of igniting a wildfire or exceed the CEQA significance threshold. Therefore, under CEQA, this impact would be less than significant (Class III).

Under NEPA, the design features associated with SDG&E's proposed project will reduce the risk associated with a portion of the existing electrical system, but not eliminate the risk. The risk would not be reduced for the circuits that are part of the MSUP but not part of the power line replacement projects. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The utilities and regulatory agencies have placed increased emphasis on implementing these requirements to reduce the risk of power line-related fires.

Impact FF-3 Reduce the effectiveness of firefighting due to the presence of the overhead power lines

Approval of the proposed power line replacement projects would authorize the continued operation and maintenance of SDG&E electric facilities within the CNF and authorize the proposed power line replacement projects. SDG&E's proposed project would replace existing wood pole structures with new steel pole structures, in addition to minor relocation, removal and undergrounding, generally within the same ROW alignment as the existing power lines. Power line relocation and undergrounding activities would remove 16.43 miles of existing 12 kV overhead power lines and replace/relocate it with 11.81 miles of new underground lines. The overall distance of overhead power lines would be reduced from 145.9 miles to 129.5 miles as a result of undergrounding portions of the system. Approval of the proposed power line replacement projects would decrease the quantity and spatial extent of overhead power lines in the project study area, thereby decreasing the potential conflict with firefighting efforts.

Ground-Based Firefighting

The presence of overhead power lines can present various ground-based fire attack hazards. Wildland firefighters working around energized transmission lines may be exposed to electrical shock hazards including the following: direct contact with downed power lines, contact with electrically charged materials and equipment due to broken lines, contact with smoke that can conduct electricity between lines, and the use of solid-stream water applications around energized lines. Between 1980 and 1999 in the United States, there were 10 firefighter fatalities due to electrical structure contact during wildfire suppression (NFPA 2001). Maintaining a safety buffer greatly reduces the risk of electrical structure contact, and it may reduce the effectiveness of ground-based frontal attacks. Most firefighting agencies implement safety buffers as provided in the International Fire Service Training Association's *Fundamentals of Wildland Firefighting* manual (Goodson 1998). Depending on the fire circumstances, the presence of power lines may result in the decision to let a fire burn through an area before attacking with ground and aerial firefighting resources.

A potential outcome of not providing immediate attack on a wildfire ignition is that it is able to build in size and intensity, especially under weather favorable to fire spread. Delays in

containment allow for rapid fire perimeter growth through a fueled flaming front and through fire brand spotting. Vegetation containing dead material often results in ember production that, under windy conditions, can rapidly increase fire spread rate by igniting spot fires as much as 2 to 3 miles or more in front of the flame front. This type of fire behavior significantly complicates fire containment.

However, the proposed power line replacement projects will occur generally within the same ROW alignment, and overhead power line placement would be essentially the same as currently exists. The proposed power line replacement projects would decrease the quantity of access roads by 11.2 miles and overhead power lines by 16.43 miles along portions of the power line system (TL629, C79, C440, and C449). Removal of 11.2 miles of access roads may reduce the capability of ground-based firefighting resources to access some areas; however, many of the roads to be removed have steep gradients (>25%), are not in advantageous tactical areas, or could otherwise pose a risk to responding firefighters and would therefore not be used for access. Removal of existing access roads also coincides with removal of overhead power lines and poles, thereby reducing potential ignition sources in these areas. Further, repair and maintenance of existing access roads (to remain) will continue to facilitate access by ground-based firefighting resources.

Aerial Firefighting

The presence of overhead power lines can present various aerial fire attack hazards including increasing the risk of power line direct contact by aircraft or water buckets, resulting in a “no fly” zone or restricting aerial water or retardant drop effectiveness in areas with power lines. Limiting the effectiveness of aerial fire containment activities can be considered significant since this form of fire attack has proven to be an especially effective means of slowing or containing fires, particularly in areas where there is limited access or longer response times. However, the proposed power line replacement projects will occur generally within the same ROW alignment, and overhead power line placement would be essentially the same as currently exists. Further, the proposed power line replacement projects would decrease the quantity of overhead power lines by 16.43 miles along portions of the power line system (TL629, C79, C440, and C449).

Under NEPA, impacts of SDG&E’s proposed project related to reducing the effectiveness of firefighting would not be adverse; under CEQA this impact would be less than significant (Class III).

Impact FF-4 Introduce non-native plants, which would contribute to an increased ignition potential and rate of fire spread

Approval of the SDG&E's proposed project would authorize the continued operation and maintenance of SDG&E electric facilities within the CNF and authorize the proposed power line replacement projects. Vegetation clearing and minor grading of access roads, staging areas, pole work areas, stringing sites, fly yards, and trench work areas associated with SDG&E's proposed project would remove native vegetation as part of the requirements for construction. Routine vegetation management around project facilities and vegetation removal for access road maintenance during operations will also require removal of native vegetation. Whenever native vegetation is removed and soils are disturbed, the potential for non-native plant establishment increases. Section B.4, Biological Resources, of this EIR/EIS also addresses impacts associated with non-native plant establishment. Removal of native plants may allow aggressively establishing non-native plants to successfully germinate and become established due to the lack of competition for sunlight and soil moisture. Once established, it is common for non-native plants to spread, especially those plants listed on the California Invasive Plant Council's invasive plant list (<http://www.cal-ipc.org/>).

Non-native plants may be spread by a variety of means, including from animal, human, and vehicle dispersal, among others. Non-native plant establishment is most prevalent where competition is scarce and there has been soil disturbance. The introduction/release and proliferation of non-native, invasive plants may be facilitated by the project's construction and maintenance activities. If allowed to proliferate, larger areas may be affected, and following natural disturbances such as wildfire, these large areas may be prone to conversion to non-native fuels, such as non-native, annual grasses. In turn, non-native grasses are more prone to ignite and carry wildfire due to their tendency to dry earlier in the season than native plants and their structure (fine, flashy fuels) and dry fuel moisture, which is conducive to fast fire spread. These types of fuels often burn more frequently than native fuels, which results in the exclusion of the native plants and the proliferation of the non-native plants. Invasive annual grasses may also influence fire spread by changing the horizontal spacing characteristics of a native fuel bed. Naturally occurring sparse shrubs with substantial spacing may become "connected" through the grasses creation of a fine fuel continuum between patchy, perennial shrubs, allowing wildfires to expand further into otherwise sparsely vegetated wildlands (Brooks 2008).

Establishment and corresponding spread of invasive plants within the project study area would adversely influence fire behavior by altering fuel beds; increasing the fine, flashy fuel load; potentially increasing the fire frequency; and contributing to increases in fire spread rates. The introduction of non-native plants with an increased ignition potential and rate of wildfire spread is considered an adverse, significant impact that can be mitigated by following the prevention and management protocol outlined in Mitigation Measure MM FF-2 as well as including the restoration of areas affected by project activities with native plantings, where appropriate as described in Section D.4, Biological Resources, of this EIR/EIS. MM BIO-4 will result in the

preparation of a restoration plan for implementation in all disturbed areas outside the area that would receive at least annual vegetation removal. The restoration plan will revegetate disturbed areas with native plants common to the eco-region and in densities and species diversity that are consistent with pre-project conditions. Therefore, with implementation of MM FF-2 and MM BIO-4, project activities resulting in the potential increase in ignition sources due to the introduction of non-native species would be mitigated under NEPA, and under CEQA, would be less than significant with implementation of mitigation (Class II).

D.8.4 Forest Service Proposed Actions

Environmental Setting/Affected Environment

Sections D.8.1 and D.8.2 describe the existing fire setting associated with SDG&E's proposed project. The Forest Service proposed actions would be in the same geographic area as SDG&E's proposed project; therefore, the fire and fuels setting would remain the same as that identified in Sections D.8.1 and D.8.2.

D.8.4.1 TL626 Alternative Routes

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts FF-1 and FF-2: This alternative would reroute a 3.7-mile segment of TL626—to the east along a new undisturbed ROW (Figure B-4a) which under Option 1 would consist of 5.5 miles and under Option 2 would consist of 5.6 miles. All other project components would remain the same. Options 1 and 2 would consist of similar construction as well as operations and maintenance activities as that described for SDG&E's proposed project. Both options would also be located within an area classified as having high fire severity similar to that described for SDG&E's proposed project.

While impacts FF-1 and FF-2 associated with construction and maintenance activities under Options 1 and 2 would increase over that identified for SDG&E's proposed project due to the longer overhead alignment in a new ROW, the overall impacts findings are anticipated to be similar to those discussed in Section D.8.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of APM HAZ-01 through APM HAZ-06, along with MM FF-1 and MM FF-2, impacts FF-1 and FF-2 would be less than significant with mitigation under CEQA (Class II).

Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance (Impact FF-1), but not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger.

For impact FF-2, the design features associated with SDG&E's proposed project will reduce the risk associated with a portion of the existing electrical system, but not eliminate the risk. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The utilities and regulatory agencies have placed increased emphasis on implementing these requirements to reduce the risk of power line-related fires.

Impact FF-3: Options 1 and 2 would result in greater impacts to aerial firefighting as a result of new poles and power lines in an area where none previously existed; however, the aerial hazards in the Cedar Creek area would be eliminated. The new poles and lines would create an obstacle to be avoided during aerial firefighting. This identified impact would be adverse; however, with implementation of MM PHS-9, impacts would be mitigated under NEPA. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

Impact FF-4: Ground disturbance associated with construction of the new steel poles and access roads would remove native vegetation within the development areas and within fuel buffers. Whenever native vegetation is removed and soils are disturbed, the potential for non-native plant establishment increases. Therefore, the fire-related impacts associated with the introduction of non-native plants and their impacts on fire behavior would be greater under Options 1 and 2 than those identified for SDG&E's proposed project. While Impact FF-4 would increase over that identified for SDG&E's proposed project, the overall impacts findings are anticipated to be similar to those discussed in Section D.8.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of Mitigation Measures MM FF-2 and MM BIO-1d would mitigate this impact under NEPA, and under CEQA, the impact would be less than significant with mitigation (Class II).

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. The rerouted underground segment of Option 3a is

approximately 11.4 miles long, and Option 3b is 6.3 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment).

Impacts FF-1 and FF-2: Construction impacts resulting from this alternative would be similar to those identified for SDG&E's proposed project in Section D.8.3.3. The relocation and undergrounding of the power line included under Options 3a and 3b would still introduce construction- and/or maintenance-related impacts associated with an increase in the amount of human activity in the project area and the introduction of a variety of ignition sources. In addition, the 1-mile overhead component would introduce new poles and lines in an area where none previously existed. Implementation of APM HAZ-01 through APM HAZ-06 along with MM FF-1 through FF-2 would mitigate the increased probability of a wildfire during construction or maintenance. This impact would be less than significant with mitigation under CEQA (Class II).

Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance, but not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger.

Impact FF-3: Options 3a and 3b would result in reduced impacts to aerial firefighting as a result of undergrounding a portion of TL626 in Boulder Creek Road. While new poles and lines would be installed for the 1-mile overhead portion in a new ROW where aerial obstructions did not exist previously, the overall extent of overhead power lines along TL626 would be reduced, thereby reducing the extent of aboveground obstacles to be avoided during aerial firefighting. With implementation of MM PHS-9, impacts resulting from the 1-mile overhead portion would be mitigated under NEPA. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

Impact FF-4: The undergrounding of Options 3a and 3b would increase ground disturbance and the likelihood of non-native plant establishment along Boulder Creek Road. Therefore, the fire-related impacts associated with the introduction of non-native plants and their impacts on fire behavior would be similar to those identified for SDG&E's proposed project identified in Section D.8.3.3. Implementation of MM FF-2 and MM BIO-4 would mitigate this impact under NEPA, and under CEQA, the impact would be less than significant with mitigation (Class II).

Option 4: Overhead Relocation in Boulder Creek Road

Environmental Effects

Impacts FF-1 and FF-2: This alternative would reroute a segment of TL626 along Boulder Creek Road and overland as shown in Figure B-4a. The rerouted segment would be approximately 4.7 miles longer than proposed by the project. All other project components would remain the same. Option 4 would consist of similar construction as well as operations and maintenance activities as that described for SDG&E's proposed project and would be located within an area classified as having high fire severity similar to that described for SDG&E's proposed project. While impacts FF-1 and FF-2 associated with construction and maintenance activities would increase due to the longer overhead alignment compared to those identified for SDG&E's proposed project, the overall impacts findings are anticipated to be similar to those discussed in Section D.8.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of APM HAZ-01 through APM HAZ-06, along with MM FF-1 and MM FF-2, impacts FF-1 and FF-2 would be less than significant with mitigation under CEQA (Class II).

Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance, but would not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger.

For impact FF-2, the design features associated with SDG&E's proposed project will reduce the risk associated with a portion of the existing electrical system, but not eliminate the risk. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The utilities and regulatory agencies have placed increased emphasis on implementing these requirements to reduce the risk of power line-related fires.

Impact FF-3: Option 4 would result in greater impacts to aerial firefighting as a result of new poles and power lines in an area where none previously existed; however, this would be off-set in part by removing the existing aerial hazards in the Boulder Creek and Cedar Creek drainages. The new poles and lines would create an obstacle to be avoided during aerial firefighting. Although the alignment would follow an existing roadway alignment, this identified impact would be adverse. With implementation of MM PHS-9, impacts would be mitigated under NEPA. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

Impact FF-4: The rerouted segment would be approximately 8.3 miles longer than proposed by the project and would therefore increase ground disturbance and the likelihood of non-native plant establishment along Boulder Creek Road. Therefore, the fire-related impacts associated with the introduction of non-native plants and their impacts on fire behavior would be similar to those identified for SDG&E's proposed project identified in Section D.8.3.3. Implementation of Mitigation Measures MM FF-2 and MM BIO-4 would mitigate this impact under NEPA, and under CEQA, the impact would be less than significant with implementation of mitigation (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts FF-1 and FF-2: This alternative would reroute less than a 0.5-mile segment in close proximity to the existing TL626 (Figure B-4c). All other project components would remain the same. Option 5 would consist of similar construction as well as operations and maintenance activities as that described for SDG&E's proposed project and would be located within an area classified as having high fire severity similar to that described for the proposed project. While impacts FF-1 and FF-2 associated with construction and maintenance activities would increase due to the longer alignment compared to those identified for SDG&E's proposed project, the overall impacts findings are anticipated to be similar to those discussed in Section D.8.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of APM HAZ-01 through APM HAZ-06, along with MM FF-1 and MM FF-2, impacts FF-1 through FF-3 would be less than significant with mitigation under CEQA (Class II).

Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance, but would not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger.

For impact FF-2, the design features associated with SDG&E's proposed project will reduce the risk associated with a portion of the existing electrical system, but not eliminate the risk. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The utilities and regulatory agencies have placed increased emphasis on implementing these requirements to reduce the risk of power line-related fires.

Impact FF-3: Option 5 would result in greater impacts to aerial firefighting as a result of new poles and power lines in an area where none previously existed; however, this would be off-set by the removal of the existing aerial hazard downstream from the new location. This identified

impact would be adverse; however, with implementation of MM PHS-9, impacts would be mitigated under NEPA. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

Impact FF-4: The rerouted segment would be approximately 0.5 mile longer than proposed by the project and would therefore increase ground disturbance and the likelihood of non-native plant establishment along Boulder Creek Road. Therefore, the fire-related impacts associated with the introduction of non-native plants and their impacts on fire behavior would be similar to those identified for SDG&E's proposed project identified in Section D.8.3.3. Implementation of Mitigation Measures MM FF-2 and MM BIO-4 would mitigate this impact under NEPA, and under CEQA, the impact would be less than significant with mitigation (Class II).

D.8.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Effects

Impacts FF-1 through FF-4: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along a new undisturbed ROW (Figure B-5a) (increase of overall alignment is 0.2 mile). All other project components would remain the same. Impacts associated with construction and maintenance activities would be essentially the same for relocating C157 under Options 1 and 2 as those identified for SDG&E's proposed project in Section D.8.3.3. As with SDG&E's proposed project, implementation of APM HAZ-01 through APM HAZ-06, along with MM FF-1, MM FF-2, and MM BIO-4, under NEPA would mitigate the increased probability of a wildfire during construction or maintenance and under CEQA, this impact would be less than significant with mitigation (Class II).

Options 1 and 2 would result in greater impacts to aerial firefighting (Impact FF-3) than SDG&E's proposed project as a result of relocating an overhead portion of C157 in an area where none previously existed. Although within 0.25 mile of the exiting line, the new poles and lines would create an obstacle in a new location to be avoided during aerial firefighting, but would remove the existing obstacle. Impact FF-3 would be adverse; however, with implementation of MM PHS-9, impacts would be mitigated under NEPA. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II).

D.8.4.3 C440 Mount Laguna Underground Alternative

Environmental Effects

Impact FF-1: This alternative would consist of undergrounding approximately 14.3 miles of C440 proposed for replacement within existing roadways in the Laguna Mountain Recreation Area. Construction impacts resulting from this alternative would be similar to those identified for SDG&E's proposed project in Section D.8.3.3. The relocation and undergrounding of C440 as proposed in this alternative would still introduce construction- and/or maintenance-related impacts associated with an increase in the amount of human activity in the project area and the introduction of a variety of ignition sources. Implementation of APM HAZ-01 through APM HAZ-06 and Mitigation Measures MM FF-1 through MM FF-2 would mitigate the increased probability of a wildfire during construction or maintenance. Under CEQA, this impact would be less than significant with mitigation (Class II). Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance, but would not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger.

Impact FF-2: Undergrounding C440 would reduce the probability of a wildfire during operations, compared to replacement of the line in place overhead as proposed, to no impact.

Impact FF-3: Impact FF-3 would reflect impact findings previously discussed in Section D.8.3.3 for SDG&E's proposed project. Undergrounding C440 would not create an interference with the effectiveness of ground-based or aerial firefighting. Therefore, this impact associated with C440 would be reduced to no impact.

Impact FF-4: The undergrounding of approximately 14.3 miles of C440 would increase ground disturbance and the likelihood of non-native plant establishment along the existing roadways. Therefore, the fire-related impacts associated with the introduction of non-native plants and their impacts on fire behavior would be slightly greater than those identified for SDG&E's proposed project identified in Section D.8.3.3. Under NEPA, this impact would be adverse. Mitigation Measures MM FF-2 and MM BIO-4 have been provided. Therefore, the introduction of non-native species would be mitigated under NEPA, and under CEQA, would be less than significant with mitigation (Class II).

D.8.5 BIA Proposed Action

Environmental Effects

Impact FF-1: Construction impacts resulting from this alternative would be similar to those identified for SDG&E's proposed project in Section D.8.3.3. The relocation and undergrounding of the power line included under this alternative would still introduce construction- and/or maintenance-related impacts associated with an increase in the amount of human activity in the project area and the introduction of a variety of ignition sources. Implementation of APM HAZ-01 through APM-06 along with Mitigation Measures MM FF-1 through MM FF-2 would mitigate the increased probability of a wildfire during construction or maintenance, and under CEQA, this impact would be less than significant with mitigation (Class II).

Impacts FF-2 and FF-3: While the undergrounding of approximately 1,500 feet of the power line would result in less potential for ignition from the undergrounded segment; the presence of the overhead power line associated with the remaining TL682 components and the project as a whole presents an ongoing source of potential wildfire ignitions; therefore impacts would be similar to those identified for SDG&E's proposed project.

Impact FF-4: The undergrounding of TL682 would increase ground disturbance and the likelihood of non-native plant establishment. However, all other components would remain the same. Therefore, as the underground segment is not substantial, the fire-related impacts associated with the introduction of non-native plants and their impacts on fire behavior would be marginally greater than those identified for SDG&E's proposed project identified in Section D.8.3.3. Implementation of Mitigation Measures MM FF-2 and MM BIO-4 would mitigate this impact under NEPA, and under CEQA, this impact would be less than significant with mitigation (Class II).

D.8.6 Additional Alternatives

D.8.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.8.1 and D.8.2.

Environmental Effects

Impacts FF-1 through FF-4: Under this alternative, overland access in rugged terrain that exceeds grades of 25% for appreciable distances in proximity to streams (as outlined in Section C.4.2) would be removed and the areas restored. This alternative removes up to 10.5 miles of certain segments of existing exclusive use access roads that are too steep to effectively control road drainage, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre) Because the overall power line facilities would remain primarily as proposed under this alternative, Impacts FF-1 through FF-4 would reflect similar impact findings previously discussed in Section D.8.3.3 for SDG&E's proposed project. Accordingly, identified impacts and mitigation measures would be the same as identified in Section D.8.3.3.

D.8.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace with system upgrades, either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with these upgrades is described as follows:

- a. Upgrade to the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation: The setting associated with this component is largely described in SDG&E's TL6931 Fire Hardening Project Proponent's Environmental Assessment (PEA) (SDG&E 2012). As described in SDG&E's PEA, the existing ROW supports a 69 kV line and is located in an area designated as having a very high fire risk.
- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. As described in the Sunrise Powerlink EIR/EIS, the majority of the terrain associated along the proposed 3-mile TL625 loop-in consists of rugged and remote terrain with very high fire risk.
- c. Convert a 6.5-mile portion of TL626 between the Santa Ysabel and Boulder Creek Substations from 69 kV to 12 kV, along with a 6.8-mile section co-located with C79 within the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.8.1 and D.8.2 for this component.

Environmental Effects

Impacts FF-1 through FF-4: Under this alternative, a 6-mile portion of TL6931 would be reconstructed or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of TL626 would be converted from 69 kV to 12 kV.

Reconstruction of TL6931

Reconstruction of TL6931 would consist of construction as well as operations and maintenance activities similar to those described for SDG&E's proposed project. Due to the nature of the existing TL6931 alignment, there would not be a substantial change to the baseline condition including the presence of facilities in an area identified as having a high fire risk. Therefore, as with SDG&E's proposed project, with implementation of APM HAZ-01 through APM HAZ-06 and Mitigation Measures MM FF-1 through FF-2, Impacts FF-1 through FF-4 associated with reconstructing TL6931 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Development of the New 3-Mile Loop-in of TL625

Development of the new TL625 loop-in would consist of construction as well as operations and maintenance activities similar to those described for SDG&E's proposed project in areas of rugged terrain. Due to the existing undeveloped nature of the proposed alignment, there would not be a substantial change to the baseline condition including the presence of a high fire hazard area; therefore, Impacts FF-1 and FF-2 would reflect similar impact findings as previously discussed in Section D.8.3.3. As with SDG&E's proposed project, implementation of APM HAZ-01 through APM HAZ-06 and MM FF-1 and MM FF-2 would mitigate Impacts FF-1 and FF-2 associated with this component, and under CEQA, impacts would be less than significant with mitigation (Class II).

Under NEPA, implementation of APM HAZ-03 and APM HAZ-06, along with MM FF-1 and MM FF-2, would reduce the risk of wildfire caused by construction, operations, and maintenance, but not eliminate the risk. These APMs and mitigation measures are effective methods to reduce risk, particularly those measures that restrict work during periods of high fire danger. For impact FF-2, the design features associated with SDG&E's proposed project will reduce the risk associated with the new lines, but would not eliminate the risk. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The utilities and regulatory agencies have placed increased emphasis on implementing these requirements to reduce the risk of power line-related fires.

This alternative would result in new poles and power lines in an area where none previously existed. However, the loop-in would be adjacent to an existing 500 kV line (Sunrise Powerlink),

which serves as the major aerial obstacle in the area. Consequently, the addition of a 69 kV line adjacent to an existing 500 kV line would have little to no impact during aerial firefighting. Nevertheless, the loop-in would create a new facility on the ground that would need to be avoided during aerial firefighting. With implementation of MM PHS-9, adverse impacts would be mitigated under NEPA. Under CEQA, significant impacts would be less than significant with mitigation (Class II).

The new loop-in would be approximately 3 miles and would, therefore, create a potential for non-native plant establishment along the new alignment. However, due to the intervening topography, helicopter use both during construction and operations and maintenance would be required rather than overland access. Therefore, Impact FF-4 associated with the introduction of non-native plants and their impacts on fire behavior would be similar to those identified for SDG&E's proposed project as described in Section D.8.3.3. Implementation of Mitigation Measures MM FF-2 and MM BIO-4 would mitigate this impact under NEPA, and under CEQA, would be less than significant with implementation of mitigation (Class II).

Convert Segments of TL626 from 69 kV to 12 kV

Conversion of segments of TL626 to 12 kV would consist of similar construction as well as operations and maintenance activities as that described for the project; therefore, Impacts FF-1 through FF-4 would reflect similar impact findings previously discussed in Section D.8.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of APM HAZ-01 through APM HAZ-06 and MM FF-1, FF-2 and MM BIO-4 under NEPA would mitigate Impacts FF-1 through FF-4 associated with this component and under CEQA impacts would be less than significant with mitigation (Class II).

D.8.7 No Action Alternative

Environmental Effects

Impacts FF-1 through FF-4: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional power lines and/or alternative means of delivering electrical service elsewhere in conformance with California Independent System Operator (CAISO) requirements, would result in similar fire hazards as described in Section D.8.3, and therefore overall impacts to fire and fuels management would not be reduced.

D.8.8 No Project Alternative

Environmental Effects

Impacts FF-1 through FF-4: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electrical facilities would remain. Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions. As the facilities would remain in place, none of the construction impacts described in Section D.8.3 would occur. Therefore, Impact FF-1 associated with construction of the proposed power line replacement projects would be eliminated. The risks associated with starting a fire (Impact FF-2) would be higher under the No Project Alternative, as the fire hardening of the existing electric lines as proposed would not occur and the fire hazards associated with the existing electric lines would remain. Impact FF-3, presence of overhead facilities reducing the effectiveness of firefighting, and Impact FF-4, project activities introducing non-native plants, would remain the same as under the existing condition.

D.8.9 Mitigation Monitoring, Compliance, and Reporting

Table D.8-2 presents the mitigation monitoring, compliance, and reporting program for fire and fuels management for the power line replacement projects and alternatives.

**Table D.8-2
Mitigation Monitoring, Compliance, and Reporting – Fire and Fuels Management**

Mitigation Measure	MM FF-1
	<p>Develop and Implement a Construction Fire Prevention/Protection Plan. SDG&E shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the U.S. Forest Service, Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of lead agencies. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the commenting agencies prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following:</p> <ul style="list-style-type: none"> • Procedures for minimizing potential ignition <ul style="list-style-type: none"> ○ Vegetation clearing ○ Fuel treatment area establishment ○ Parking requirements ○ Smoking restrictions ○ Hot work restrictions

**Table D.8-2
Mitigation Monitoring, Compliance, and Reporting – Fire and Fuels Management**

	<ul style="list-style-type: none"> • Red Flag Warning restrictions • Fire coordinator role and responsibility • Fire suppression equipment on site at all times work is occurring • Requirements of Title 14 of the California Code of Regulations, 918 “Fire Protection” for the private land portions • Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice 113-1 (July 2012) • Emergency response and reporting procedures • Emergency contact information • Worker education materials; kick-off and tailgate meeting schedules • Other information as provided by responsible and commenting agencies (as appropriate for each project). <p>Additional restrictions will include the following:</p> <ul style="list-style-type: none"> • During the construction phase of the project, the applicant shall implement ongoing fire patrols. The applicant shall maintain fire patrols during construction hours and for 1 hour after end of daily construction and hotwork. • Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), the applicant shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the Forest Service, BLM, BIA, SDRFPD, SDCFA, and CAL FIRE. <ul style="list-style-type: none"> • During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs), and when the Forest Service Project Activity Level (PAL) is “E” on Cleveland National Forest (CNF) (as appropriate), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under a Hot Work Procedure. The Hot Work Procedure will be in compliance with the applicable sections in NFPA 51-B “Fire prevention during welding, cutting, or other hot work” and CFC Chapter 26 “Welding and other Hot Work.” <ul style="list-style-type: none"> • The applicant and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF. • All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition. • Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crew members as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect. • Each member of the construction crew shall be trained and equipped to
--	--

**Table D.8-2
Mitigation Monitoring, Compliance, and Reporting – Fire and Fuels Management**

	<p>extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 feet of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan.</p> <p>SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the responsible fire agencies for comment a minimum of 90 days prior to the start of any construction activities. The final plan will be approved by the responsible lead agencies with input from the fire and permitting agencies, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities. All construction work on the proposed power line replacement projects shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.</p>
<i>Location</i>	All access roads and work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Prepare Construction Fire Prevention/Protection Plan</p> <p>b. Approval and implementation of Construction Fire Prevention/Protection Plan</p> <p>c. CPUC/Forest Service monitor: Line item in compliance monitoring reports</p>
<i>Timing</i>	<p>a. Draft Plan: At least 90 days prior to scheduled start of construction.</p> <p>b. Final Plan: At least 30 days prior to scheduled start of construction (plan in effect throughout construction).</p> <p>c. During construction</p>
<i>Responsible Agency</i>	<p>CAL FIRE, SDRFPD, SDCFA for proposed project and all alternatives</p> <p><u>SDG&E's Proposed Project</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM FF-2 Develop and Implement an Operations and Maintenance Fire Prevention/Protection Plan. The plan will address all SDG&E electric facilities proposed to be covered under the Master Special Use Permit (MSUP) both on and off the Cleveland National Forest (CNF) and will be implemented during all operational maintenance work associated with the project for the life of the project, including construction operations. This plan will satisfy the requirements of the SDG&E Project Specific Fire Plan, as identified in SDG&E's Electric Standard Practice 113-1. Important fire safety concepts that shall be included in the plan and make it an essential overall mitigation measure are the following:</p> <ul style="list-style-type: none"> • Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans) • Fuel treatment area maintenance • When vegetation work will occur (prior to any other work activity) • Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread

**Table D.8-2
Mitigation Monitoring, Compliance, and Reporting – Fire and Fuels Management**

	<ul style="list-style-type: none"> • Coordination procedures with fire authority • Integration of the project's Construction Fire Prevention/Protection Plan content • Personnel training and fire suppression equipment • Red Flag Warning restrictions for operation and maintenance work • Fire safety coordinator role as manager of fire prevention and protection procedures, coordinate with fire authority and educator • Communication protocols • Incorporation of responsible agency review and approved Response Plan mapping and assessment. • Other information as provided by responsible and commenting agencies, as applicable. <p>SDG&E will provide a draft copy of the Operations and Maintenance Fire Prevention/Protection Plan to the responsible fire agencies for comment a minimum of 90 days prior to the completion of the first project segment. The final plan will be approved by the responsible lead agencies prior to energizing the project and provided to SDG&E for implementation during all operations and maintenance activities.</p>
<i>Location</i>	All access roads and work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<ul style="list-style-type: none"> a. Prepare draft Operations and Maintenance Fire Prevention/Protection Plan b. Approval and implementation of plan (no operations and maintenance work during Red Flag Warnings and Very High PAL) c. Ongoing coordination with Fire Authority d. CPUC/Forest Service monitor: Line item in compliance monitoring reports
<i>Timing</i>	<ul style="list-style-type: none"> a. Draft Plan: At least 90 days prior to completion of the first project segment b. Final Plan: At least 30 days prior to completion of the first project segment (revision every 5 years thereafter) c. and d. During construction ^b, operations and maintenance
<i>Responsible Agency</i>	<p>CAL FIRE, SDRFPD, SDCFA for proposed project and all alternatives</p> <p><u>SDG&E's Proposed Project</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

^b This is intended to clarify that construction of certain segments will be completed and enter the operations and maintenance phase prior to others; therefore, certain segments will adhere to the Construction Fire Prevention/Protection Plan and others will adhere to the Operations and Maintenance Fire Prevention/Protection Plan, all within the overall construction period (5 years) for the project. Furthermore, compliance with both plans may be noted as a line item in compliance monitoring reports throughout the construction period.

D.8.10 Residual Unavoidable Effects

Under NEPA, SDG&E's proposed project and alternatives would reduce the risk of power line-related wildfires by adopting the mitigation measures summarized in Section D.8.9, along with APMs provided in Section D.8.3.2, but would not eliminate that risk. Under CEQA, implementation of mitigation measures presented in Section D.8.9 would mitigate all fire and fuels management impacts to less than significant. Therefore, under CEQA, no residual unavoidable effects would occur for SDG&E's proposed project or alternatives.

D.8.11 References

14 CCR 1250–1258. Fire Prevention Standards for Electric Utilities.

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

BAFC (Border Agency Fire Council). 2012. *Border Agency Fire Council Year End Report 2011 & 2012*. Accessed April 2014. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5424115.pdf.

Biswell, H.H. 1989. *Prescribed Burning in California Wildlands Vegetation Management*. Los Angeles, California: University of California Press.

BLM (Bureau of Land Management). 2007. *Eastern San Diego County Proposed Resource Management Plan and Final Environmental Impact Statement*. November 2007. http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/elcentro/planning/2007/fesdrmp.Par.47996.File.dat/ESDC_PRMP&FEIS_Vol1_title.pdf.

BLM. 2009. "Wildland Fire Operations." BLM, Fire and Aviation. Accessed July 2, 2009, <http://www.blm.gov/nifc/st/en/prog/fire/fireops.html>.

Brooks, M.L. 2008. Chapter 3: "Plant Invasions and Fire Regimes." Chapter 3 in *Wildland Fire in Ecosystems: Fire and Nonnative Invasive Plants*. USDA Forest Service General Technical Report RMRS-GTR-42-vol. 6. 2008. http://www.fs.fed.us/rm/pubs/rmrs_gtr042_6/rmrs_gtr042_6_033_046.pdf.

CAL FIRE (California Department of Forestry and Fire Protection). n.d. "CAL FIRE Civil Cost Recovery Program." Fact Sheet. Accessed March 2013. http://www.fire.ca.gov/communications/downloads/fact_sheets/CostRecovery.pdf.

- CAL FIRE. 2003. *California Fire Siege 2003 – The Story*. Accessed June 23, 2014.
http://www.fire.ca.gov/fire_protection/fire_protection_2003_siege.php
- CAL FIRE. 2008. *CAL FIRE Power Line Fire Prevention Field Guide*. November 2008.
- CAL FIRE. 2013. *Strategic Fire Plan, San Diego Unit (MVU)*. <http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1492.pdf>.
- CAL FIRE. 2014a. “Historical Wildfire Activity Statistics (Redbooks).” Accessed March 14, 2014. http://www.fire.ca.gov/fire_protection/fire_protection_fire_info_redbooks.php.
- CAL FIRE. 2014b. “Top 20 Largest California Wildfires.” Accessed June 23, 2014.
http://www.fire.ca.gov/communications/downloads/fact_sheets/20LACRES.pdf.
- California Fire Alliance. 2013. “Communities at Risk.” Accessed March 2013.
http://cafirealliance.org/communities_at_risk/communities_at_risk_list?filter_field=county_name&filter_text=san+diego.
- CISR (Center for Invasive Species Research). 2013. “The Goldspotted Oak Borer (*Agrilus auroguttatus*) Schaeffer (Coleoptera; Buprestidae).” Center for Invasive Species Research, University of California, Riverside, California. Accessed March 26, 2013.
http://csir.ucr.edu/goldspotted_oak_borer.html.
- Chambers Group 2012. *Biological Technical Report for the San Diego Gas and Electric Company Electric Safety and Reliability Plan Project, San Diego County, California*. Prepared by Chambers Group Inc. Santa Ana, California: Chambers Group Inc. May 2012.
- County of San Diego. 1985. San Diego County Code of Regulatory Ordinances Chapter 4: Removal of Combustible Vegetation and Other Flammable Materials. Effective July 24, 1985.
- County of San Diego. 2007. *2007 Firestorms After Action Report*. February 2007.
http://www.sdcounty.ca.gov/oes/docs/2007_SanDiego_Fire_AAR_Main_Document_FINAL.pdf.
- County of San Diego. 2010a. *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Wildland Fire and Fire Protection*. Land Use and Environment Group, Department of Planning and Land Use, Department of Public Works. August 31, 2010. <http://www.sdcounty.ca.gov/pds/docs/Fire-Guidelines.pdf>.

- County of San Diego. 2010b. *Multi-Jurisdictional Hazard Mitigation Plan, San Diego County, California*. Prepared for Office of Emergency Services, County of San Diego August 2010. <http://www.co.san-diego.ca.us/oes/docs/2010-HazMit-Final-August-2010.pdf>.
- CPUC (California Public Utilities Commission). 2008. *Report of the Consumer Protection and Safety Division Regarding the Guejito, Witch and Rice Fires*. September 2, 2008.
- CPUC. 2014. *Final Initial Study and Mitigated Negative Declaration for San Diego Gas & Electric Company Tie-Line 637 Wood-to-Steel Project*. January 2014.
http://www.cpuc.ca.gov/environment/info/dudek/WoodtoSteel/TL637_Final_IS-MND.pdf.
- CPUC and BLM (California Public Utilities Commission and Bureau of Land Management). 2008. *Final Environmental Impact Report/Environmental Impact Statement and Proposed Land Use Amendment for the Sunrise Powerlink Project*. SCH No. 2006091071; DOI Control No. FES-08-54. Prepared by Aspen Environmental Group. Prepared for CPUC and BLM. Agoura Hills, California: Aspen Environmental Group. October 2008.
- CPUC and BLM. 2011. *Final Environmental Impact Report/Environmental Impact Statement for the East County Substation, Tule Wind, and Energia Sierra Juarez Gen-Tie Projects*. Prepared by Dudek for CPUC and BLM. Encinitas, California: Dudek. October 2011.
http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ECO_Final_EIR-EIS.htm#VOLUMES 1 and 2: Revised Draft EIR/EIS.
- Forest Service (U.S. Forest Service). 2000a. *Wildland Fire in Ecosystems: Effects of Fire on Flora*. USDA Forest Service General Technical Report RMRS-GTR-42-vol. 2. Ogden, Utah: USDA, Forest Service, Rocky Mountain Research Station. December 2000.
- Forest Service. 2000b. *Wildland Fire in Ecosystems: Effects of Fire on Fauna*. USDA Forest Service General Technical Report RMRS-GTR-42-vol. 1. Ogden, Utah: USDA, Forest Service, Rocky Mountain Research Station. December 2000.
- Forest Service. 2005a. *Land Management Plan, Part 2 Cleveland National Forest*. USDA, U.S. Forest Service, Pacific Southwest Region. R5-MB-077. September 2005.
- Forest Service. 2005b. *Wildland Fire in Ecosystems: Effects of Fire on Soil and Water*. General Technical Report RMRS-GTR-42-vol. 4. Ogden, Utah: USDA, Forest Service, Rocky Mountain Research Station. September 2005.

- Forest Service. 2012. *Environmental Assessment: Palomar Mountain Vegetation Treatment Program*, Cleveland National Forest, San Diego County, California. October 2012.
- Forest Service. 2013. *Wildland Fire Management: The National Fire Plan*. USDA Forest Service, Pacific Northwest Region, Fire & Aviation. Accessed April 2014. www.fs.fed.us/r6/fire/fireplan.
- FRAP (Fire and Resource Assessment Program). 2010. "California's Forests and Rangelands: 2010 Assessment." CAL FIRE Fire Resource and Assessment Program. June 18, 2010. <http://frap.fire.ca.gov/assessment/2010/assessment2010.php>.
- FRAP. 2013. "The Fire Resource and Assessment Program." CAL FIRE. Accessed March 4, 2013. <http://frap.fire.ca.gov/>.
- Goodson, C. and B. Adams. 1998. *Fundamentals of Wildland Firefighting*. 3rd ed. International Fire Service Training Association.
- Iberdrola Renewables Inc. 2010. *Applicant's Environmental Document: Tule Wind San Diego County, California*. Prepared by HDR Engineering Inc. San Diego, California: HDR Engineering Inc. September 2010.
- Keeley, J.E. and C.J. Fotheringham. 2003. "Impact of Past, Present and Future Fire Regimes on North American Mediterranean Shrublands." In *Fire and Climatic Change in Temperate Ecosystems of the Western Americas*, edited by T.T. Veblen, W.L. Baker, G. Montenegro, and T.W. Swetnam, 218–262. New York: Springer-Verlang.
- Lipsett, M. 2008. *Wildfire Smoke: A Guide for Public Health Officials*. July 2008. Accessed August 4, 2009. http://oehha.ca.gov/air/risk_assess/wildfirev8.pdf.
- NERC (North American Electric Reliability Corporation). 2006. "Standard FAC-003-1 — Transmission Vegetation Management Program." April 7, 2006.
- NERC. 2013. NERC homepage. Accessed March 2013. <http://www.nerc.com/>.
- NFPA (National Fire Protection Association). 2001. "Firefighter fatalities database, 1980 to 1999: Electrical hazards during wildfire suppression activities, 1980–1999." Quincy, Massachusetts: National Fire Protection Association.
- San Diego County Fire Chiefs Association. 2007. "Memorandum of Understanding between the Fish and Wildlife Service of the United States Department of the Interior, the California Department of Fish and Game, the California Department of Forestry, the San Diego

County Fire Chiefs Association, and the Fire District's Association of San Diego County." February 26, 2007.

SanGIS (San Diego Geographic Information Source). 2011. "Fuel Ages: 2011 [map]."

Schroeder, M. J., M. Glovinsky, V. Hendricks, F. Hood, and M. Hull. 1964. *Synoptic Weather Types Associated with Critical Fire Weather*. Washington, D.C.: U.S. Department of Commerce, National Bureau of Standards, Institute for Applied Technology, Accession No. AD 449630.

SDCFA (San Diego County Fire Authority). 2014. "SDCFA Apparatus." Accessed April 2014. <http://www.sdcounty.ca.gov/sdcfa/apparatus.html>.

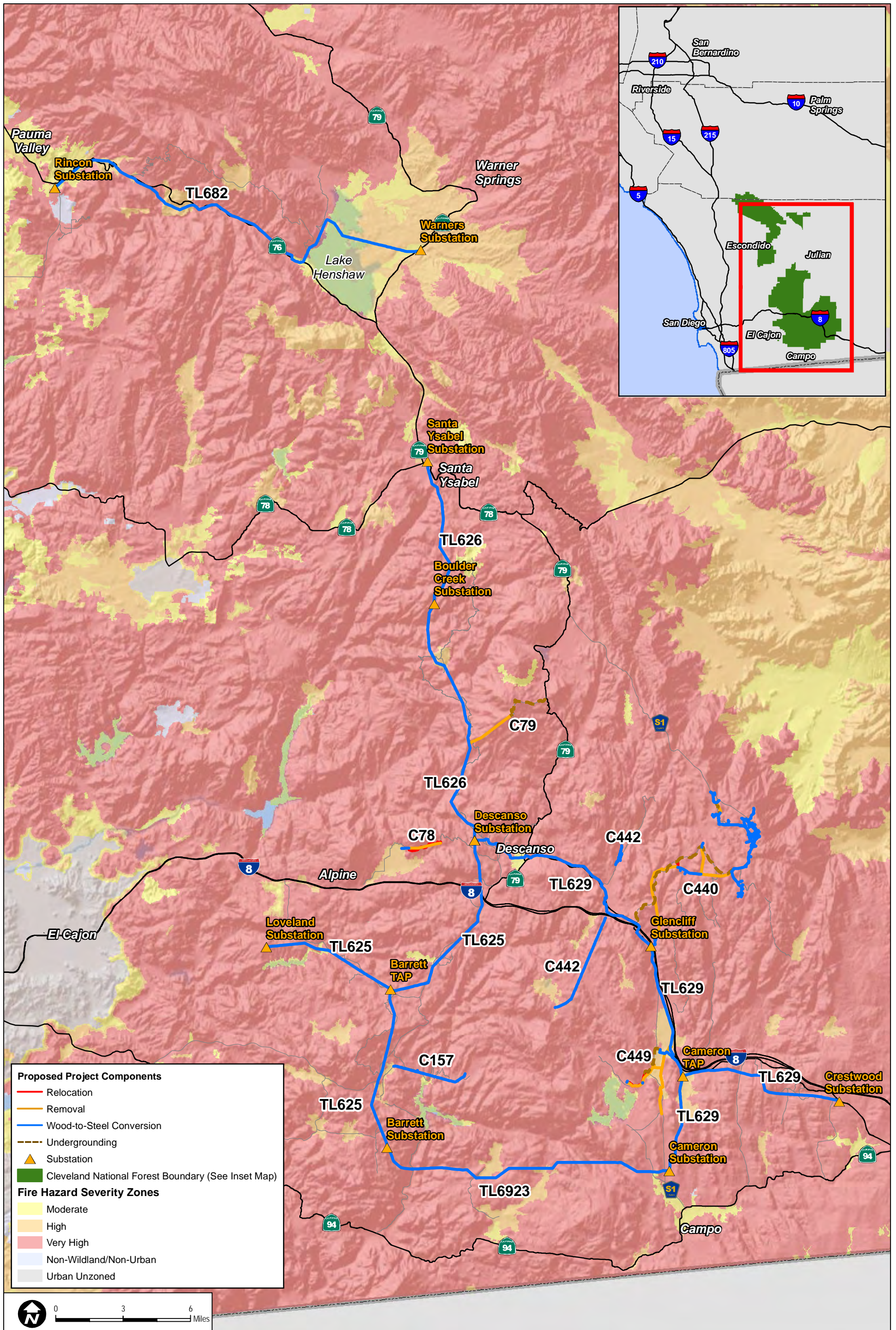
SDG&E (San Diego Gas & Electric). 2012. *Proponent's Environmental Assessment for the TL6931 Fire Hardening /Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.

SDG&E. 2013. *SDG&E Revised Plan of Development. San Diego Gas & Electric Company, Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California*. April 2013. Accessed March 2014. Prepared by Insignia Environmental. [http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20\(04-19-13S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20(04-19-13S).pdf).

Smalley, J. 2008. "Wildfires and Climate Change: An American Perspective on a Global Issue." Fire Interdisciplinary Research on Ecosystem Services (Seminar). June 24, 2008. http://www.fires-seminars.org.uk/downloads/seminar2/smalley_public_keynote.pdf

Weather Underground. 2013. "Weather History for MSILSD (Sill Hill CA US SDGE, Descanso, CA)." Accessed April 2013. <http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=MSILSD&month=2&day=15&year=2013>.

INTENTIONALLY LEFT BLANK

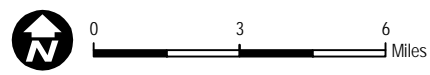


Proposed Project Components

- Relocation
- Removal
- Wood-to-Steel Conversion
- - - Undergrounding
- ▲ Substation
- Cleveland National Forest Boundary (See Inset Map)

Fire Hazard Severity Zones

- Moderate
- High
- Very High
- Non-Wildland/Non-Urban
- Urban Unzoned



D.9 Hydrology and Water Quality

This section addresses potential hydrology and water quality impacts resulting from construction and operation of the proposed power line replacement projects along with the operation and maintenance activities proposed for authorization under the MSUP. Section D.9.1 provides a description of the existing setting/affected environment, and the applicable regulatory framework related to hydrology and water quality is introduced in Section D.9.2. An analysis of impacts/environmental effects of SDG&E's proposed project and discussion of mitigation are provided in Section D.9.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.9.4, and Section D.9.5 discusses the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are discussed in Section D.9.6. Section D.9.7 discusses the No Action Alternative and Section D.9.8 describes the No Project Alternative. Section D.9.9 provides mitigation monitoring, compliance, and reporting information. Section D.9.10 addresses residual effects of the project and Section D.9.11 lists the references cited in this section.

D.9.1 Environmental Setting/Affected Environment

This section presents a discussion of existing surface water, drainage, flooding, water quality, and groundwater resources within the study area, including a description of locations susceptible to erosion, a list of water quality impaired streams and lakes, and areas susceptible to flood hazards.

Methodology and Assumptions

The existing SDG&E electric facilities (power lines, access roads and other facilities) to be covered under the proposed MSUP are located within the Trabuco, Palomar, and Descanso ranger districts within the Cleveland National Forest (CNF). Existing SDG&E electric facilities within the CNF are located in southwestern Orange County and southeastern San Diego County, with the majority of the study area (which includes all of the proposed power line replacement projects) located within and surrounding the Palomar and Descanso ranger districts in San Diego County. These existing facilities are routinely maintained and repaired as needed. The erosion and water quality impacts associated with these past actions are part of the baseline for the analysis of SDG&E's proposed project.

Baseline hydrologic conditions in SDG&E's proposed project study area were obtained from a review of pertinent documents from the U.S. Geological Survey (USGS), California Department of Water Resources (DWR), State Water Resources Control Board (SWRCB), San Diego Regional Water Quality Control Board (RWQCB), and the County of San Diego. In addition, SDG&E's Plan of Development was also reviewed to assess the existing environmental setting (SDG&E 2013).

D.9.1.1 Regional Hydrologic Setting

The County of San Diego is divided into two hydrologic regions—the Colorado River Hydrologic Region, which drains in an easterly direction into the Salton Sea, and the South Coast Hydrologic Region, which drains in a westerly direction toward the Pacific Ocean and encompasses most of the County, parts of southwestern Riverside County, and southwestern Orange County. The Peninsular Mountain Range generally forms the divide between these two regions. SDG&E’s proposed project is predominantly located within the South Coast Hydrologic Region, although a short segment of distribution line C440 near Mount Laguna is located within the Colorado River Hydrologic Region. While surface water can drain through the County’s watersheds, the arid and semi-arid climates mean this surface water is often also infiltrated into the subsurface saturated zone to become groundwater, and be a source of recharge for groundwater aquifers (including both fractured rock aquifers and unconfined alluvial basin aquifers). Aquifers are recharged at varying rates depending upon a number of factors, primarily the amount and frequency of rainfall and the hydraulic conductivity of the underlying soil and rock.

SDG&E’s proposed project is located within eight major watersheds (also referred to by the SWRCB as “hydrologic units”), including (from north to south), the San Juan Watershed, the Santa Margarita Watershed, the San Luis Rey Watershed, the San Dieguito Watershed, the San Diego River Watershed, the Sweetwater Watershed, the Otay Watershed, and the Tijuana Watershed (Figure D.9-1). All of these watersheds convey surface water from mountainous open space areas (such as the CNF) through heavily urbanized areas (such as the San Diego metropolitan area), and eventually out to the Pacific Ocean. The Tijuana River Watershed drains into Mexico before eventually discharging to the Pacific Ocean just north of the international border. As indicated earlier, a small segment of C440 is located in the Anza Borrego Watershed (draining in an easterly direction toward the Salton Sea). The transmission and distribution alignments that would be upgraded along with the long-term operation and maintenance activities proposed for authorization under the MSUP are generally located in the upper or middle reaches of these major watersheds; the proposed power line replacement projects cross numerous drainages, tributaries, and main-stem streams which are further discussed below.

The overall climate in the County of San Diego varies between a mild coastal climate in the west, to wider temperature ranges and more precipitation in the mountains in the central portion of the County, and a hotter and drier climate in the desert and desert transitional areas in the eastern portion of the County. SDG&E’s proposed project is within the central portion of the County at elevations ranging from approximately 1,300 to 5,500 feet (SDG&E 2013). Regionally, the County’s coastal areas on average see less than 10 inches of rain per year, the mountain peaks in excess of 40 inches, and the deserts less than 3 inches (County of San Diego 2011). A majority of the precipitation in the region of SDG&E’s proposed project is in the

form of rain and falls between the months of November and February; however, monsoonal moisture during the late summer months can often be the source of localized high intensity storms. Higher elevations, particularly the mountains within the CNF, will also receive some precipitation in the form of snow.

D.9.1.2 Surface Water Hydrology

The San Diego River Basin Region, which encompasses the South Coast Hydrologic Region, is divided into 11 hydrologic units (HUs), 54 hydrologic areas (HAs), and 147 hydrologic subareas (HSAs). As defined in the Water Quality Control Plan for the San Diego Basin, HUs are the entire watershed of one or more streams; HAs are major tributaries and/or major groundwater basins within the HU; and HSAs are major subdivisions of HAs, including both water-bearing and non-water-bearing formations (San Diego RWQCB 2011). Numerous erosion gullies, swales, and dry washes transect SDG&E's proposed project. During heavy rain events, runoff starts as sheet flow and concentrates in several paths as it flows into area streams. As shown in Figure D.9-1, major USGS blue-line streams in the MSUP area include the San Luis Rey River, the Sweetwater River, Cottonwood Creek, Pine Valley Creek, the San Diego River, and Cedar Creek, among others. Aside from these major drainages, surface water features associated with the proposed power line replacement projects include scattered wetland communities, narrow, sandy ephemeral washes, and streambeds.

TL682

TL682 is located within the San Luis Rey HU, which defines the watershed area of the San Luis Rey River. The river extends over 55 miles across northern San Diego County forming a watershed with an area of approximately 360,000 acres or 562 square miles, which ultimately drains to the Pacific Ocean near Oceanside at the Camp Pendleton Marine Corps Base (Project Clean Water 2013). TL682 spans across both the middle and upper watersheds of the river, which are separated by Lake Henshaw—a reservoir along the San Luis Rey River owned and operated by the Vista Irrigation District. Water from the San Luis Rey River is diverted approximately 10 miles downstream of Lake Henshaw Dam to serve the municipal drinking water needs of customers in Escondido and Vista. Approximately 6.5 miles of the eastern power line segment is located in the Upper San Luis Rey River watershed and the remaining western portion of the power line is located in the Middle San Luis Rey Watershed.

The USGS National Hydrography Dataset was reviewed to identify the sub-watersheds, blue-line streams, and other hydrologic features which would be encompassed by, crossed by, or in close proximity to TL682. Table D.9-1 separates the power line by drainage area, and identifies the watersheds and hydrologic features within each.

Table D.9-1
Watersheds and Hydrologic Features – TL682

HUC 10 Name	HUC 12 Name	HUC 12 Code	Length within watershed	Named Creeks / Rivers Spanned	No of times spanned	Type
Middle San Luis Rey River	Pauma Creek–San Luis Rey River	180703030202	3.5 miles (eastern part of TL682)	Plaisted Creek	1	Intermittent
				Potrero Creek	1	Intermittent
				Unnamed	1	Intermittent
	Paradise Creek–San Luis Rey River	180703030201	10 miles (central part of TL682)	Unnamed	11	Intermittent
				Cedar Creek	1	Perennial
				San Luis Rey River	4	Perennial
Wigham Creek				1	Perennial	
Upper San Luis Rey River	Matagual Creek–San Luis Rey River	180703030105	6.5 miles (western part of TL682)	Lake Henshaw Inundation Area	NA	NA
				San Luis Rey River	1	Perennial
				Unnamed	1	Intermittent
	Buena Vista Creek	180703030104	1.2 miles (western part of TL682)	Buena Vista Creek	6	Intermittent

Note: The hydrologic features are based on the USGS National Hydrography Dataset and not a formal jurisdictional delineation of waters for SDG&E’s proposed project. In addition, watershed boundaries and names provided in this table are similar, but not the same, as those contained in the Water Quality Control Plan for the San Diego Region.

TL626

TL626 is aligned predominantly in a north–south direction and is located within three major watersheds (HUs), including (from north to south) the San Dieguito Watershed, the San Diego River Watershed, and the Sweetwater Watershed. The vast majority of the alignment is within the San Diego River Watershed with the northern tip within the San Dieguito Watershed and the southern tip within the Sweetwater Watershed. With a land area of approximately 440 square miles, the San Diego River Watershed is the second largest HU in San Diego County (Project Clean Water 2013). TL626 spans across the upper portion of the watershed, which is separated from the lower watershed by El Capitan Reservoir—one of the five reservoirs in the San Diego River Watershed that supply water to as many as 760,000 residents in the region. The mouth of the San Diego River discharges into the Pacific Ocean at the community of Ocean Beach.

Table D.9-2 separates the power line by drainage area, and identifies the watersheds and hydrologic features within each.

Table D.9-2
Watersheds and Hydrologic Features – TL626

HUC 10 Name	HUC 12 Name	HUC 12 Code	Length of segment within watershed	Named Creeks / Rivers Spanned	No of times spanned	Type
Upper San Ysabel Creek	Dan Price Creek–San Isabel Creek	180703040101	1 mile (northern end of TL626)	Unnamed	1	Intermittent
Upper San Diego River	Ritchie Creek–San Diego River	180703040502	5 miles (northern part of TL626)	San Diego River	1	Intermittent
				Sentenac Creek	1	Intermittent
				Unnamed	2	Intermittent
				Orinoco Creek	1	Intermittent
				Temescal Creek	1	Intermittent
	Cedar Creek	180703040501	3.5 miles (central part of TL626)	Unnamed	2	Intermittent
				Cedar Creek	1	Perennial
				Kelley Creek	1	Intermittent
	Boulder Creek	180703040503	3.5 miles (central part of TL626)	Sheep Camp Creek	1	Intermittent
				Boulder Creek	1	Intermittent
				Unnamed	1	Intermittent
	Conejos Creek	180703040504	6.4 miles (southern part of TL626)	Conejos Creek	1	Intermittent
				Unnamed	4	Intermittent

Note: The hydrologic features are based on the USGS National Hydrography Dataset and not a formal jurisdictional delineation of waters for SDG&E’s proposed project. In addition, watershed boundaries and names provided in this table are similar, but not the same, as those contained in the Water Quality Control Plan for the San Diego Region.

TL625

TL625 is a “Y”-shaped alignment with three segments intersecting at Barrett Tap. It is located partially within the Sweetwater Watershed and partially within the Tijuana Watershed. The Sweetwater River Watershed (along with the Otay and Pueblo San Diego watersheds) combine to form the San Diego Bay watershed area. The Sweetwater River Watershed is the largest of the three encompassing 230 of the approximately 415-square-mile total (Project Clean Water 2013). The Tijuana River watershed encompasses a region of approximately 1,750 square miles on either side of the California–Baja California border. Although only 27% of the watershed area is within California, the river discharges to the Tijuana Estuary and Pacific Ocean on the U.S. side of the international border (Project Clean Water 2013).

Table D.9-3 separates the power line by drainage area, and identifies the watersheds and hydrologic features within each.

**Table D.9-3
Watersheds and Hydrologic Features – TL625**

HUC 10 Name	HUC 12 Name	HUC 12 Code	Length of segment within watershed	Named Creeks / Rivers Spanned	No of times spanned	Type
Lower Cottonwood Creek	McAlmond Canyon–Cottonwood Creek	180703 050302	0.5 miles (southern end of TL625)	Unnamed	1	Intermittent
Pine Valley Creek	Middle Pine Valley Creek	180703 050202	2.5 miles (northern part of TL625)	Unnamed	2	Intermittent
	Lower Pine Valley Creek	180703 050203	5 miles (southern branch of TL625)	Unnamed	4	Intermittent
Wilson Creek				1	Intermittent	
Upper Sweetwater River	Taylor Creek	180703 040802	9.1 (central part of TL625)	Unnamed	8	Intermittent
				Taylor Creek	2	Perennial and Intermittent
	Viejas Creek–Sweetwater River	180703 040803	0.5 miles (western branch of TL625)	Sweetwater River	1	Perennial
	Loveland Reservoir–Sweetwater River	180703 040901	2.2 miles (western end of TL625)	Unnamed	2	Intermittent
	Viejas Creek–Sweetwater River	180703 040803	1.5 miles (northern part of TL625)	Sweetwater River	1	Perennial
	Descanso Creek–Sweetwater River	180703 040801	1 miles (northern end of TL625)	None	NA	NA
Upper San Diego River	Conejos Creek	180703 040504	0.4 miles (northern end of TL625)	None	NA	NA

Note: The hydrologic features are based on the USGS National Hydrography Dataset and not a formal jurisdictional delineation of waters for SDG&E's proposed project. In addition, watershed boundaries and names provided in this table are similar, but not the same, as those contained in the Water Quality Control Plan for the San Diego Region.

TL629

Similar to TL625, TL629 is located partially within the Sweetwater Watershed and partially within the Tijuana Watershed, and consists of three branches that come together at Cameron Tap. TL629 is primarily within the Tijuana Watershed, and compared to the other TL segments, has a more arid, desert-like climate. Table D.9-4 separates the power line by drainage area, and identifies the watersheds and hydrologic features within each.

**Table D.9-4
Watersheds and Hydrologic Features – TL629**

HUC 10 Name	HUC 12 Name	HUC 12 Code	Length of segment within watershed	Named Creeks / Rivers Spanned	No of times spanned	Type
Upper Sweetwater River	Descanso Creek–Sweetwater River	180703040801	5.4 miles (western part of TL629)	Sweetwater River	1	Perennial
				Descanso Creek	1	Intermittent
				Sagamatum Creek	1	Intermittent

**Table D.9-4
Watersheds and Hydrologic Features – TL629**

HUC 10 Name	HUC 12 Name	HUC 12 Code	Length of segment within watershed	Named Creeks / Rivers Spanned	No of times spanned	Type
Pine Valley Creek	Middle Pine Valley Creek	180703050202	1.4 miles (middle part of TL629)	None	NA	NA
	Upper Pine Valley Creek	180703050201	3 miles (middle part of TL629)	Unnamed	4	Intermittent
Pine Valley Creek				1	Perennial	
Upper Cottonwood Creek	Kitchen Creek–Cottonwood Creek	180703050102	7 miles (middle part of TL629)	Unnamed	2	Intermittent
				Cottonwood Creek	5	Perennial
				Kitchen Creek	1	Intermittent
	La Posta Creek	180703050101	6.7 miles (eastern part of TL629)	La Posta Creek	2	Intermittent
				Unnamed	3	Intermittent
Tecate Creek	Miller Creek–Campo Creek	180703050401	3.7 miles (eastern end of TL629)	Miller Creek	1	Intermittent
				Unnamed	2	Intermittent
	Campo Valley–Campo Creek	180703050402	2.3 miles (southern end of TL629)	None	NA	NA

Note: The hydrologic features are based on the USGS National Hydrography Dataset and not a formal jurisdictional delineation of waters for SDG&E's proposed project. In addition, watershed boundaries and names provided in this table are similar, but not the same, as those contained in the Water Quality Control Plan for the San Diego Region.

TL6923

TL6923 is an east–west oriented power line located between the southern ends of TL629 and TL625. It is located entirely within the Tijuana River Watershed. Table D.9-5 separates the power line by drainage area, and identifies the watersheds and hydrologic features within each.

**Table D.9-5
Watersheds and Hydrologic Features – TL6923**

HUC 10 Name	HUC 12 Name	HUC 12 Code	Length of segment within watershed	Named Creeks / Rivers Spanned	No of times spanned	Type
Tecate Creek	Campo Valley–Campo Creek	180703050402	1.4 miles (eastern end of TL6923)	Unnamed	1	Intermittent
Upper Cottonwood Creek	Moreno Reservoir–Cottonwood Creek	180703050103	3.3 miles (east-central part of TL6923)	Hauser Creek	1	Intermittent
				Unnamed	5	Intermittent
Lower Cottonwood Creek	Potrero Creek	180703050301	2.4 miles (central part of TL6923)	Potrero Creek	1	Intermittent
				Unnamed	1	Intermittent
	McAlmond Canyon–Cottonwood Creek	180703050302	6.6 miles (western part of TL6923)	Cottonwood Creek	1	Intermittent
				San Diego City Conduit (Canal)	1	Intermittent
				Unnamed	6	Intermittent

Note: The hydrologic features are based on the USGS National Hydrography Dataset and not a formal jurisdictional delineation of waters for SDG&E's proposed project. In addition, watershed boundaries and names provided in this table are similar, but not the same, as those contained in the Water Quality Control Plan for the San Diego Region.

Distribution Lines

Distribution Lines C78, C79, C157, C440, and C449 would be located within a variety of watersheds, mainly in the southern portion of the MSUP area near the Desconso, Glencliff, and Barrett substations, and the Cameron and Barrett Taps. Table D.9-6 separates the distribution lines by drainage area, and identifies the watersheds and hydrologic features within each.

Table D.9-6
Watersheds and Hydrologic Features – Distribution Lines

Segment	HUC 10 Name	HUC 12 Name	Named Creeks / Rivers Spanned	No of times spanned	Type
C442	Pine Valley Creek	Middle Pine Valley Creek	Unnamed	1	Intermittent
	Upper Cottonwood Creek	Morena Reservoir-Cottonwood Creek	None	NA	NA
	Pine Valley Creek	Upper Pine Valley Creek	Unnamed	1	Intermittent
			Pine Valley Creek	4	Perennial
Pine Valley Creek	Upper Pine Valley Creek	None	NA	NA	
C157	Pine Valley Creek	Lower Pine Valley Creek	Barrett Lake Inundation Area	NA	NA
			Pine Valley Creek	1	Intermittent
			Unnamed	3	Intermittent
C449	Upper Cottonwood Creek	Kitchen Creek–Cottonwood Creek	Unnamed	7	Intermittent
			Cottonwood Creek	2	Intermittent
	Upper Cottonwood Creek	Morena Reservoir–Cottonwood Creek	None	NA	NA
	Upper Cottonwood Creek	La Posta Creek	La Posta Creek	1	Intermittent
C440	Upper Cottonwood Creek	Kitchen Creek-Cottonwood Creek	Unnamed	8	Intermittent
			Cottonwood Creek	2	Perennial
	Pine Valley Creek	Upper Pine Valley Creek	Unnamed	4	Intermittent
	Upper Cottonwood Creek	La Posta Creek	None	NA	NA
	Vallecito Creek	Potrero	None	NA	NA
	Vallecito Creek	Upper Vallecito Creek	None	NA	NA
C78	Upper Sweetwater River	Viejas Creek–Sweetwater River	Unnamed	2	Intermittent
C79	Upper San Diego River	Conejos Creek	None	NA	NA
	Upper Sweetwater River	Descanso Creek-Sweetwater River	None	NA	NA
	Upper San Diego River	Boulder Creek	None	NA	NA

D.9.1.3 Surface Water Quality

Water quality impairments, as defined in Clean Water Act (CWA) Section 303(d) for waters crossed by SDG&E's proposed project are identified in Table D.9-7 (see section D.9.2, Applicable Regulations, Plans, and Standards for more information about CWA Section 303(d)). The San Luis Rey River, east of Interstate 15 (I-15), is listed as impaired for nitrogen (additional impairments west of I-15 exist and are listed in Table D.9-7). TL682 spans the impaired section of the river immediately west of Lake Henshaw. The transmission line also comes within close proximity of the northern edge of the river in some locations along Highway 76. The closest existing pole is located approximately 110 feet from the river.

Cottonwood Creek, within the Tijuana Rivershed, is listed as impaired for selenium. This creek begins in Pine Valley and flows south, crossing under Highway 8 and into Morena Reservoir, which is also a 303(d)-listed water body (listed for phosphorus, color, manganese, pH, and ammonia as nitrogen). The creek then flows west to Barrett Lake, and south along Barrett Lake Road. TL629 spans Cottonwood Creek along I-8, and TL6932 spans the creek in one location along Barrett Lake Road. The closest existing pole is located approximately 40 feet from Cottonwood Creek. Morena Reservoir is located over 8,000 feet from any of the proposed power line replacement projects.

Loveland Reservoir near TL625 is listed as impaired for aluminum, manganese, dissolved oxygen, and pH. TL625 spans a few of the northern branches of this reservoir along Japatul Valley Road. The closest existing pole along any of the proposed power line replacement projects is located approximately 145 feet from the reservoir. Distribution line C442 crosses a segment of Pine Creek at two locations and closely parallels the creek in several other locations where it is identified as impaired for turbidity (sediment).

Finally, TL629, C442, and C440 would involve work within a High Receiving Water Risk Watershed, as defined in the SWRCB Construction General Permit Guidance (SWRCB n.d.). These are watersheds that drain either directly or indirectly to water bodies that are either (1) 303(d) listed as being impaired for sediment/siltation, (2) have a U.S. Environmental Protection Agency (EPA)-approved, sediment-related total maximum daily load (TMDL), or (3) have the existing beneficial uses of SPAWN (Fish Spawning), MIG (Fish Migration), and COLD (Cold Water Habitat) according to the most recent applicable Regional Board Basin Plan.

Table D.9-7
Approved 2010 CWA Section 303(d) List of Water
Quality Limited Segments Crossed by SDG&E's Proposed Project

Power/ Transmission Line	Water Body Name	Pollutant (Pollutant Category)	Source or Source Category	Proposed or Approved TMDL Completion Date
C442	Pine Valley Creek	Turbidity (Sediment)	Unknown	2019
TL625, TL629, TL6023, C440	Cottonwood Creek	Sediment Toxicity (Toxicity)	Unknown, Urban Runoff/Storm Sewers	2019
		DDT (Pesticides)	Unknown	2019
	Cottonwood Creek (Tijuana River Watershed)	Selenium (Metals/Metalloids)	Unknown	2019
TL682	San Luis Rey River (W of I-15)	Chloride and Total Dissolved Solids (TDS) (Salinity)	Urban Runoff/Storm Sewers, Surface Mining, Golf Course Activities, Agriculture-Storm Runoff, Flow Regulation/Modification, Unknown Sources	2019
		Enterococcus and Fecal Coliform (Pathogens)	Unknown	2021
		Toxicity and Phosphorus	Unknown, Urban Runoff/Storm Sewers	2021
	San Luis Rey River (E of I-15)	Total Nitrogen as N (Nutrients)	Unknown, Urban Runoff/Storm Sewers	2021
TL625	Loveland Reservoir	Aluminum, Selenium, and Manganese (Metals/Metalloids)	Unknown	2019
		Oxygen, Dissolved (Nutrients)	Unknown	2019
		pH (Miscellaneous)	Unknown	2019

Source: SWRCB 2010

D.9.1.4 Hydrologic Soil Groups

Infiltration of water through soil can reduce the amount of water that reaches stormwater management systems, filter pollutants and contaminants from the water, and recharge the watershed. The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS; formerly the Soil Conservation Service [SCS]), classifies a soil's infiltration characteristics into four Hydrologic Soil Groups (HSG):

- **Group A:** Low runoff potential. Soils having high infiltration rates even when thoroughly wetted and consisting chiefly of deep, well-drained sands or gravels.
- **Group B:** Soils having moderate infiltration rates when thoroughly wetted and consisting chiefly of moderately deep to deep, moderately well- to well-drained sandy loam soils with moderately fine to moderately coarse textures.

- **Group C:** Soils having slow infiltration rates when thoroughly wetted and consisting chiefly of silty-loam soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture.
- **Group D:** High runoff potential. Soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material.

Group A and B soils possess the greatest infiltration rates (unless soils are compacted during construction) and are generally best suited to stormwater infiltration. However, the San Diego area has a relatively high concentration of Groups C and D soils, which possess lower infiltration rates that either limit the use of infiltration-based stormwater management systems or require soil amendments to assist infiltration systems.

Figure D.9-2 shows the soil hydrologic groups within the project area, and Table D.9-8 breaks down each segment by soil hydrologic groups underlying the proposed work areas. The project is predominantly underlain by soils with hydrologic groups B and C, indicating a moderate susceptibility to erosion; however, certain segments, such as distribution line C78 and transmission line TL6923, are underlain by substantial areas of soils with a high runoff potential.

Table D.9-8
Soil Hydrologic Groups within Work Areas, by Segment

Segment	Hydrologic Groups (acres / percent of segment work area disturbance ¹)							
	A		B		C		D	
C157	—	0%	0.8	92%	0.0	3%	0.0	4%
C440	—	0%	5.5	82%	1.2	18%	—	0%
C442	0.3	20%	1.0	71%	0.1	5%	0.1	4%
C449	1.1	63%	0.4	21%	—	0%	0.3	15%
C78	—	0%	—	0%	0.4	74%	0.1	26%
C79 ²	—	0%	0.1	10%	0.6	48%	0.0	1%
TL625	—	0%	18.0	36%	26.9	53%	5.7	11%
TL626	—	0%	1.2	6%	16.6	78%	3.4	16%
TL629	18.2	36%	22.1	44%	7.4	15%	3.0	6%
TL682	5.2	17%	17.3	56%	5.5	18%	1.9	6%
TL6923	1.4	14%	2.4	25%	2.1	22%	3.7	39%
Work Area Total	26.1	15%	68.8	39%	60.7	35%	18.3	10%

Notes:

¹ Work area disturbance includes pole installation sites, stringing sites, staging yards, and fly yards. Figures above are not inclusive of access road improvements.

² About 40% of the work areas within C79 were outside the extent of the soil survey data and thus these are not included in the calculation.

Source: SSURGO 2007

D.9.1.5 Groundwater Resources

Groundwater is the primary source of water supply for land uses in the immediate vicinity of SDG&E's proposed project; most rural residences (in unincorporated parts of the County on private lands) rely almost entirely on groundwater wells for their source of water. Only the western tips of the TL682 and TL625 segments are within the service area boundaries of the San Diego County Water Authority (SDCWA) member agencies.

SDG&E's proposed project area is primarily underlain by a fractured rock aquifer consisting of granitic rock intruding older metamorphic rocks that form mountain ranges generally separated by northwest trending valleys, subparallel to faults branching from the San Andreas Fault. Sediment filled valleys form hydrogeologically distinct aquifer systems characterized by unconfined groundwater with a greater storage capacity compared to fractured rock aquifers. Because less water is typically stored in fractured rock, seasonal variations in precipitation and drought conditions often result in greater variations in water levels than in similar conditions where aquifers comprise sediments (County of San Diego 2007). Within SDG&E's proposed project area, there are four DWR-defined groundwater basins (consisting of sediment-filled basins/valleys): the Campo Valley, the Cottonwood Valley, the Warner Valley, and the San Luis Rey groundwater basins (DWR 2003, 2004a–c). These basins underlie relatively localized portions of four of the transmission line segments and one of the distribution line segments (TL629, TL626, TL682, TL6923, and C449).

The location of the DWR-defined groundwater basins are described below.

Groundwater Basins

Cottonwood Valley (TL629 and C449)

The Cottonwood Valley Groundwater Basin (approximately 3,850 acres) underlies portions of TL629 and C449. The basin is bounded by crystalline rocks of the Peninsular Ranges, except on the west where it is bounded by Moreno Reservoir. The primary water bearing deposits are Quaternary alluvium and residuum consisting of gravel, sand, silt, and clay in deposits that reach a maximum thickness of 100 feet. Groundwater in the basin is dominantly calcium bicarbonate in character with total dissolved solids (TDS) content ranging from about 130 to 645 milligrams per liter (mg/L) when measured in 1967 (DWR 2004a).

Campo Valley (TL629 and TL2923)

The Campo Valley Groundwater Basin (approximately 3,550 acres) underlies portions of TL629 and TL2923. The principal water-bearing unit of the basin is Quaternary alluvium which consists

of gravel, sand, silt, and clay. The alluvium ranges in thickness from a few feet to roughly 100 feet, with an average of 55 feet and well yield typically under 40 gallons per minute (gpm) (DWR 2003). The alluvium contains water of calcium bicarbonate character with electrical conductivity readings that were around 800 micromhos ($\mu\Omega/\text{cm}$) when tested in the 1960s; TDS concentration ranged from 219 to 480 mg/L, also tested in the 1960s; and water is generally rated suitable for domestic and irrigation uses (DWR 2003).

Warner Valley (TL682)

The Warner Valley Groundwater Basin (approximately 24,000 acres) underlies TL682 in Warner Valley and Valle de San Jose, the upper drainage of the San Luis Rey River in northeastern San Diego County. The basin is bounded on the west by Lake Henshaw and the Elsinore fault, and on all other sides by impermeable crystalline rocks of the Peninsular Ranges. Sediments reach at least 900 feet thick in the basin, and well yields average about 800 gpm, with maximum yields up to 1,800 gpm (DWR 2004b). Groundwater in this basin is dominantly sodium bicarbonate in character, though some calcium bicarbonate water is found in the southern part of the basin. Some sulfate and chloride rich water is found near Warner Hot Springs in the eastern part of the basin. Analyses of water sampled in the 1960s show a range in TDS content from 168 to 638 mg/L and an average about 304 mg/L. Groundwater is generally rated suitable for irrigation and domestic uses except near Warner Hot Springs, where it is rated inferior for irrigation use because of sodium content and for domestic use because of high fluoride concentrations (DWR 2004b).

San Luis Rey Valley (TL682)

The San Luis Rey Valley Groundwater Basin (approximately 29,700 acres) also underlies TL682 within an east-west-trending alluvium-filled valley located along the western coast of San Diego County. The basin is bounded on the east, northeast, and southeast by the contact of alluvium with impermeable Mesozoic granitic and Pre-Cretaceous metamorphic rocks and on the west by the Pacific Ocean. The principal water bearing deposits within the basin are Quaternary and younger alluvium, which are estimated to yield an average of 500 gpm, but exceed rates of 2,000 gpm (DWR 2004c). Water in this basin is of calcium-bicarbonate, calciumsulfate-bicarbonate, and calcium-sulfate types. The Department of Health Services data for 19 wells show a TDS content of 530 to 7,060 mg/L, with an average of approximately 1,258 mg/L; values for total dissolved solids ranged from 960 to 3,090 mg/L in 1983; and electrical conductivity readings for the basin range from 500 to 1,300 μmho (DWR 2004c).

Fractured Rock Aquifers

Groundwater resources in the crystalline bedrock underlying the Peninsular Ranges is contained within fracture systems within the rock. Groundwater yield in any one place within the fractured

rock system depends highly on the width, orientation, continuity, and interconnectedness of fractures within the rock.

Groundwater quality in the fractured rock aquifers of San Diego County has not been as extensively studied as the unconfined alluvial aquifers. Existing water quality data for large highly utilized unconfined aquifers is continually collected by state and local water agencies as well as the California Department of Public Health and the DWR. Of California's approximately 16,000 public-supply wells, 80% are in groundwater basins designated by DWR and characterized as unconfined alluvial aquifers (USGS 2011). Fractured rock aquifers, on the other hand, are highly variable and often have low production rates. Information on groundwater quality within fractured rock aquifers is scarce and/or not publicly available. The County Guidelines for groundwater resources document does not identify the project area as being within a specific groundwater problem area (such as overdrafted basin or areas with high levels of naturally occurring radioactive elements) (County of San Diego 2007).

As part of the California Groundwater Ambient Monitoring and Assessment Program, limited data was collected from hard rock aquifers within the San Diego Drainages Hydrogeologic Province in an attempt to understand potential water quality concerns within the province (USGS 2011). The hard rock study area was the largest (at 850 square miles), and the spatial density of sampled wells (public supply wells) was very low. Nevertheless, the data may be useful and broadly representative of the project area because the sampled wells, like SDG&E's proposed project, are primarily completed within bedrock composed of fractured and decomposed granite.

The results by the USGS (2011) provide a general idea of potential groundwater concerns existing in the project area. The results relevant to fractured rock aquifers are summarized below.

- **Inorganic Constituents (with health-based benchmarks):** One or more of the inorganic constituents with health-based benchmarks (i.e., Maximum Contaminant Level (MCL), Health Advisory Level, Notification Level) were high (relative to those benchmarks) in 25% percent of the hard rock study area; these included vanadium (V), arsenic (As), and boron (B). Vanadium and arsenic concentrations were not correlated to either urban or agricultural land use, indicating natural sources as the primary contributors of these constituents to groundwater. Boron was positively correlated with urban land uses, suggesting that anthropogenic activities are a contributing source of boron to groundwater.
- **Inorganic constituents (with aesthetic benchmarks):** Inorganic constituents with aesthetic benchmarks that were detected at high relative-concentrations include manganese (Mn) (in 33.3% of the hard rock study area) and TDS (in 16.7% of the hard rock study area). TDS concentrations were correlated to agricultural land use suggesting that

agricultural practices are a contributing source of TDS to groundwater. Manganese concentrations were highest in groundwater with low dissolved oxygen and pH indicating that the reductive dissolution of oxyhydroxides in the bedrock may be an important mechanism for the mobilization of manganese in groundwater. TDS concentrations were highest in shallow wells and in modern (< 50 years) groundwater, which indicates anthropogenic activities are a source of TDS concentrations in groundwater.

- **Organic constituents:** Concentrations of organic constituents above the health-based benchmarks were not detected.

The study also indicated that several samples in the hard rock study area had radioactive elements in the medium (gross alpha) to high (radon 222) range (USGS 2011). According to Figure 4 of the San Diego County Guidelines for Groundwater Resources, portions of SDG&E's proposed project would be located within an area identified as being a problem area for nitrates and radioactive elements (County of San Diego 2007). This includes the area in and around Descanso; areas near Campo, the Cameron Tap, and the Cameron Substation; and an area west and south of the Barrett Substation.

D.9.1.6 Flood Hazards

Many of the streams to be crossed by the proposed power line replacement projects have 100-year floodplains or flood hazard areas designated by the Federal Emergency Management Agency (FEMA). The 100-year floodplain is the area that would be inundated by a flood with a recurrence interval of once in 100 years, on average. The purpose of the floodplain delineations is to identify flood hazard areas for flood insurance purposes and to inform the public and local permitting agencies about flood hazards so that construction and other activities in flood prone areas can be managed in a manner that will reduce or mitigate future flood damage. Since floodplain mapping is usually done as an aid to local governments in urban areas or areas that are expected to be prone to urbanization, most watercourses in outlying areas (including portions of SDG&E's proposed project area) are not mapped even though they may be subject to substantial flood hazards. It is reasonable to assume that all watercourses which convey natural flows, whether mapped as floodplains or flood hazard areas or not, present some level of flood risk.

In addition to flooding in response to heavy rainfall, there is a potential risk of flooding due to failure of an upstream dam. San Diego County Multi-jurisdictional Hazard Mitigation Plan identifies potential dam inundation zones within San Diego County. Dam owners are required by state law to prepare and file Dam Inundation Maps with the State Office of Emergency Services. These maps delineate the areas at risk in the event of failure for each dam. Portions of SDG&E's proposed project fall within dam inundation zones. This includes portions of proposed project

that are located downstream of Barrett Dam, Barrett Spillway, Henry Jr. Dam, Cuyamaca Dam, Cuyamaca Spillway, and Lake Henshaw Dam (SanGIS 2012).

The flood hazard is not limited to inundation. Bank erosion and bed scour (a lowering or destabilization of the channel bed during a flow event) are also hazards that should be taken into consideration in designing infrastructure in or near a natural watercourse. Most natural washes are subject to bank erosion and bed scour at some level. In the project area, erosion and scour are more likely to be a concern in the desert areas (e.g., Tijuana watershed), but could occur anywhere along the power line alignments.

Flood hazard areas are described for each segment below, and were identified based on review of FEMA flood maps and dam inundation zones compiled by the County (SanGIS 2012).

TL682

A fly yard and staging area, a stringing site, and 13 poles (or pole work sites) are located within or partially within a 100-year flood hazard area along Buena Vista Creek, northeast of Lake Henshaw. In addition, six stringing sites and seven pole work sites are located within or partially within the inundation area associated with Lake Henshaw (i.e., this is the area that would be inundated if the reservoir filled to capacity).

In addition, six poles along TL682 are within the dam failure inundation zone downstream of the Lake Henshaw Dam. The Lake Henshaw Dam inundation zone follows the entire length of the San Luis Rey River, from the west side of Lake Henshaw, to the Pacific Ocean at the City of Oceanside. TL682 generally follows Highway 76, from Lake Henshaw to the community of Rincon, which parallels the north side of the San Luis Rey River. The components of TL682 that are within the inundation zone are those which are in close proximity to the San Luis Rey River.

TL626

TL626 crosses the 100-year flood hazard area associated with the San Diego River, though all poles are located outside of the flood plain. One pole work site is located within the inundation zone of the Lake Cuyamaca Dam and the Cuyamaca Dam Spillway. The actual pole locations, however, are located on either side of Boulder Creek, approximately 4.0 miles southwest, and downstream of, Lake Cuyamaca.

TL629

There are several 100-year flood zones mapped along TL629 associated with Pine Valley Creek, Descanso Creek, Sagamatum Creek, and the Sweetwater River. In and around Descanso, there are 15 pole work sites, 2 stringing sites, and 1 staging area located within or partially within 100-year

flood zones. There are no dam inundation zones mapped along the segment. In addition, there is one pole work site, and one stringing site within or partially within the 100-year flood zone associated with Pine Valley Creek. There are no dam inundation zones mapped along this segment.

TL6923

TL6923 spans the 100-year flood hazard area associated with Cottonwood Creek, though all poles and proposed work sites are located outside of the flood plain. One pole and one stringing site of TL6923 are within or partially within the dam inundation zone associated with Barrett Lake, along Cottonwood Creek. The primary dam upstream of this location is the Barrett Dam Spillway, which feeds directly into the creek, approximately 2.0 miles north of where the line crosses the creek. Barrett Dam and Henry Jr. Dam are two additional dams that control flow into Barrett Lake.

C157

There are two pole work sites upstream of Barrett Lake located in 100-year flood hazard areas. There are no dam inundation zones mapped along this segment.

C442

Fifteen pole locations, two stringing sites, and one staging area are located within the 100-year flood hazard area associated with Pine Valley Creek. There are no dam inundation zones mapped along this segment.

TL625, C79, C78, C440, and C449

No flood hazard areas have been identified or mapped along these segments.

D.9.2 Applicable Regulations, Plans, and Standards

This section discusses federal, state, and regional environmental regulations, plans, and standards applicable to SDG&E's proposed project. As described in Section D.4, Biological Resources, wetlands, open water features, and drainages may be under the jurisdiction of the U.S. Army Corps of Engineers (ACOE) as wetlands or waters of the United States; California Department of Fish and Wildlife (CDFW) as riparian areas, lakes, or streambeds; or the RWQCB as waters of the state. These regulatory agencies make the ultimate determinations of which features are subject to their respective jurisdiction. Formal jurisdictional delineations have not been completed for SDG&E's proposed project, though one would be required prior to project implementation by the various regulatory agencies to determine what permitting actions would be necessary.

D.9.2.1 Federal Regulations

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

CWA Section 208

Under Section 208 of the CWA, the SWRCB is required to designate management agencies to implement provisions of water quality management plans. On August 16, 1979, the SWRCB designated the Forest Service as the Water Quality Management Agency (WQMA) for all activities on national forest system lands in California. The Pacific Southwest Region (Region 5) of the Forest Service prepared a handbook titled *Water Quality Management for National Forest System Lands in California, Best Management Practices*, which describes current Forest Service practices and procedures for protection of water resources. Implementation of the practices and procedures meet the Forest Service's obligations as a designated WQMA.

The best management practices (BMPs) presented in the handbook are divided into eight categories, including timber management, road and building site construction, mining, recreation, vegetation management, fire suppression and fuels management, watershed management, and range management. Although the handbook clarifies that BMPs described under one category may also have applicability in other areas, BMPs most relevant to SDG&E's proposed project are associated with road and building site construction, vegetation management, and fire suppression and fuels management. The Forest Service is currently in the process of updating BMPs regarding non-point source pollution that may occur as a result of road management activities on Forest Service lands in the Pacific Southwest Region. Activities associated with road management include travel route planning, design, construction, operation, maintenance, reconstruction, storage, and decommissioning. The BMPs are to be applied as needed to prevent adverse impacts of road management activities on water, aquatic, and riparian resources to the extent possible. BMPs range from suggested practices to prohibitions, as required by Forest Service directives, and cover specific categories such as assessing damaged roads after storms, wet weather operations standards, and BMP monitoring.

CWA Section 303 and 304

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States (33 U.S.C. Section 1313). Section 304(a) requires the EPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kinds and extent of effects that pollutants in water may have on human health and welfare (33 U.S.C. Section 1314(a)). Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based on biomonitoring methods may be employed when numerical standards cannot be established or when they are needed to supplement numerical standards.

Section 303(c)(2)(b) of the CWA requires states to adopt numerical water quality standards for toxic pollutants for which the EPA has published water quality criteria and that could reasonably be expected to interfere with designated uses in a water body.

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop a list of waterways (or segments thereof) with poor water quality. Waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for waters on the list and develop action plans, including the identification of TMDLs for associated pollutants, to improve water quality. As discussed above in the environmental setting, there are several water bodies within SDG&E's proposed project area that have been classified as 303(d) waters; however, none have established TMDLs.

Section 401 of the Clean Water Act

Section 401 of the CWA requires an applicant for a federal permit, such as the construction or operation of a facility that may result in the discharge of a pollutant into navigable waters, to obtain certification that the proposed activity will comply with state water quality standards (i.e., beneficial uses, water quality objectives, and anti-degradation policy) from the state in which the discharge originates (33 U.S.C. 1341). This process is known as water quality certification. For projects in western San Diego County, the San Diego RWQCB, Region 9, issues Section 401 water quality certifications. For projects in eastern San Diego County, the Colorado River Basin RWQCB, Region 7, issues Section 401 water quality certifications. SDG&E's proposed project is primarily located within Region 9, although a small portion of the C440 line would be located in Region 7.

Section 404 of the Clean Water Act

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or filled material into waters of the United States, which include wetlands adjacent to national

waters (33 U.S.C. 1344). This permitting program is administered by the ACOE and enforced by the EPA. For more information on Section 404 of the CWA, see Section D.4, Biological Resources, of this EIR/EIS.

Section 402 of the Clean Water Act

The National Pollutant Discharge Elimination System (NPDES) permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 U.S.C. 1342). In the State of California, the EPA has authorized the SWRCB permitting authority to implement the NPDES program. Projects that disturb one or more acres are required to obtain NPDES coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity, Order No. 99-08-DWQ. The Construction General Permits require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP describes BMPs the discharger would use to protect stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. On September 2, 2009, the SWRCB issued a new NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), that became effective July 1, 2010. This new permit requires that construction and demolition sites meet more stringent, measurable (quantitative) standards for discharge management. New requirements include a risk-based permitting approach, Numeric Action Levels and Numeric Effluent Limitations, post-construction standards for discharges, increased BMP requirements, and increased monitoring and reporting requirements.

Safe Drinking Water Act

The Safe Drinking Water Act (42 U.S.C. 201) was originally passed by Congress in 1974 to protect public health by regulating the public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources, including rivers, lakes, reservoirs, springs, and groundwater wells. The act authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. The EPA states that established drinking water standards must be met, and water agencies must work together to enforce standards.

Through Title 40, Part 144, of the Code of Federal Regulations (CFR) (40 CFR 144), the Safe Drinking Water Act prohibits any injection activity that could allow the movement of fluid-containing contaminants into underground sources of drinking water if the presence of that

contaminant could cause a violation of any primary drinking water regulation under 40 CFR 142, or that would otherwise adversely affect public health. This regulation allows the director to take emergency action if a known contaminant is present or is likely to enter a public water system or underground drinking water source.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.) is a federal law that set up the basic U.S. system of pesticide regulation to protect applicators, consumers, and the environment. It is administered and regulated by the EPA and the appropriate environmental agencies of the respective states. A significant revision in 1972 by the Federal Environmental Pesticide Control Act and several others have expanded EPA's present authority to oversee the sales and use of pesticides with emphasis on the preservation of human health and protection of the environment by "(1) strengthening the registration process by shifting the burden of proof to the chemical manufacturer, (2) enforcing compliance against banned and unregistered products, and (3) promulgating the regulatory framework missing from the original law." The act prohibits sale of any pesticide in the United States unless it is registered and labeled to indicate approved uses and restrictions. It is a violation of the law to use a pesticide in a manner that is inconsistent with the label instructions.

Forest Service CNF Land Management Plan

The Soil, Water, and Air Program of the Forest Service CNF Land Management Plan (LMP) encompasses all activities associated with the management of water quality and supply, soil productivity and stability, air quality management, hazardous materials mitigation, and geologic and paleontologic resource management on National Forest lands. National Forest managers are required to emphasize management of groundwater and surface water resources to benefit ecosystem health and National Forest administrative needs on their respective forests.

The following policies pertain to surface and groundwater hydrology and water quality:

AM 2

Forest-wide Inventory is a CNF Land Management policy, which promotes developing and maintaining the capacity (processes and systems) to provide and analyze the scientific and technical information needed to address agency priorities, by engaging in the following actions:

- Identify and map all riparian areas.
- Inventory and analyze geologic and hydrologic resources (fossils, caves, groundwater basins and extractions, geologic Special Interest Areas, geologic features along scenic

corridors, etc.) that are available to the public, affect other resources, or need special management or protection.

- Identify and mitigate geologic hazards (seismic activity, sliding land, land subsidence, flooding and erosion) through landscape and watershed planning, sediment placement site planning, engineering design, reclamation and maintenance.
- Inventory surface and groundwater extractions, diversions, miles/acres of streams, acres of water bodies, acres of riparian, etc.
- The validation of watershed standards for cumulative effects (less than 20 percent manipulation/year and less than 40 percent over five years).

WAT 1

Watershed Function is a policy providing the protection, maintenance and restoration of natural watershed functions including slope processes, surface water and groundwater flow and retention and riparian area sustainability, by the following actions:

- Restore, maintain and improve watershed conditions. Assure that approved and funded rehabilitation and emergency watershed treatments are implemented in an effective and timely manner.
- Maintain or restore soil properties and productivity to ensure ecosystem health (soil microbiota and vegetation growth), soil hydrologic function, and biological buffering capacity.
- Manage RCAs [riparian conservation areas] to maintain or improve conditions for riparian dependent resources. RCAs include aquatic and terrestrial ecosystems and lands adjacent to perennial, intermittent, and ephemeral streams, as well as around meadows, lakes, reservoirs, ponds, wetlands, vernal pools, seeps, springs and other water bodies. Riparian dependent resources are those natural resources that owe their existence to the area, such as fish, amphibians, reptiles, fairy shrimp, aquatic invertebrates, plants, birds, mammals, soil and water quality.
- Maintain natural stream channel conductivity, connectivity and function.
- Assess and manage geologic resources and hazards to integrate earth science principals and relationships into ecosystem management, reduce risks to people and resources, and to interpret and protect unique values.
- Identify, prioritize based on risk, and mitigate the impacts of abandoned and inactive landfills on water, soil and other resources. Stabilize and reclaim where necessary,

abandoned and inactive landfills to maintain proper watershed function, public safety and resource benefit.

- Inventory, analyze and prioritize abandoned mines to identify chemical and physical hazards, historic significance, and biological resources prior to reclamation. Mitigate safety hazards and adverse environmental impacts, conduct reclamation as needed, and assure that water quality standards are met.
- Maintain watershed integrity by replacing or disposing of displaced soil and rock debris in approved placement sites.

WAT 2

Water Management is a policy for the management of groundwater and surface water in order to maintain or improve water quantity and quality in ways that minimize adverse effects. The management policy outlines the following actions:

- Assess the impacts of existing and proposed groundwater extractions and tunneling projects and proposals to assure that developments will not adversely affect aquatic, riparian or upland ecosystems and other uses, resources or rights (e.g., Tribal water rights).
- Promote water conservation at all national forest administrative and authorized facilities. Protect and improve water quality through implementing BMPs and other project-specific water quality protection measures for all national forest and authorized activities. Include appropriate conservation and water quality mitigation measures in the review response when reviewing non-forest water-related projects that may affect forest resources.
- Conserve and protect high quality water sources in quantities adequate to meet national forest needs.
- Take corrective actions to minimize conditions leading to state listing of 303(d) impaired waters on National Forest System land. For those waters that are both on and off National Forest System land ensure USFS [Forest Service] management does not contribute to listed water quality degradation.
- Actively pursue the acquisition of water rights and water allocation processes to secure instream flow and groundwater resources for current and future needs sufficient to sustain native riparian dependent resources and other forest resources and uses.
- Identify the need for and encourage the establishment of water releases for current and future uses to maintain instream flow needs, including channel maintenance, and to protect and eliminate impacts on riparian dependent resources.

- Participate in all Federal Energy Regulatory Commission licensing and re-licensing efforts on National Forest System land to ensure sufficient consideration and protection is provided for riparian dependent resources. Incorporate instream flow, riparian, and other natural resource management requirements into 4(e) license conditions.
- Monitor water development projects to ensure that instream flows are meeting riparian dependent resource needs.
- To maintain or improve habitat containing threatened, endangered, proposed, candidate, and sensitive species coordinate activities with CDFG [CDFW], NOAA [National Oceanic and Atmospheric Administration] Fisheries, USFWS [U.S. Fish and Wildlife Service], SWRCB, and other appropriate agencies involved in recommending instream flow and surface water requirements for waterways.
- Cooperate with federal, tribal, state and local governments, and private entities to secure the instream flows that are needed to maintain, recover, and restore riparian dependent resources, channel conditions, and aquatic habitat.

WAT 3

Hazardous Materials is a policy for the management of known hazardous materials risks. The management policy outlines the following actions:

- Develop a Hazardous Materials Response Plan that addresses risk and standard cleanup procedures.
- Coordinate with federal, tribal, state, city and county agencies, and local landowners to develop emergency response guidelines for hazardous spills on National Forest System land or on adjacent non-National Forest System land with the potential to affect threatened, endangered, proposed, candidate, and sensitive fish and amphibian habitat. In the event of hazardous material spills in known habitat on National Forest System land, Forest Service will contact the USFWS and NOAA Fisheries (as appropriate) within 24 hours. Quickly contact resource personnel and use them as consultants to minimize impacts to habitat and to initiate emergency consultation with the USFWS if necessary. Provide habitat maps to response personnel for hazardous spills.

National Flood Insurance Program

FEMA administers the National Flood Insurance Program (NFIP) under the U.S. Department of Homeland Security. The program encourages the adoption and enforcement by local communities of floodplain management ordinances that reduce flood risks. In support of the

program, FEMA identifies flood hazard areas throughout the United States on FEMA flood hazard boundary maps.

D.9.2.2 State Laws and Regulations

California Fish and Game Code

Sections 1601–1603 of the California Fish and Game Code require a Streambed Alteration Agreement between the CDFW and any entity proposing to substantially divert or obstruct the natural flow or effect changes to the bed, channel, or bank of any river, stream, or lake. The agreement is designed to protect the fish and wildlife values of a river, lake, or stream.

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act of 1967 (California Water Code, Section 13000 et seq.) requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The criteria for the proposed project area are contained in the Water Quality Control Plan for the Colorado River Basin Plan, Region 7, adopted by the Colorado River Basin RWQCB on November 17, 1993, and the Water Quality Control Plan for the San Diego Basin adopted by the Colorado River Basin RWQCB with amendments through April 25, 2007.

State Maximum Contaminant Levels

As part of the California Safe Drinking Water Act, the State Department of Health Services sets primary and secondary standards for drinking water supplies. MCLs set by DHS are either as stringent or more stringent than federal MCLs.

CCR Title 22 Standards for the Use of Recycled Water

Title 22 contains standards for the use of recycled water for general construction purposes as detailed in Chapter 3, Article 3, Section 60307—Use of Recycled Water for Other Purposes. Recycled water used for soil compaction, mixing concrete, and/or dust control on roads and streets provided the water meets at least disinfected secondary-23 recycled water standards. Disinfected secondary-23 recycled water means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last 7 days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30-day period.

In addition, Chapter 3, Article 4, Section 60310—Use Area Requirements, states that no irrigation with, or impoundment of, disinfected secondary-2.2 or disinfected secondary-23 recycled water shall take place within 100 feet of any domestic water supply well and that any use of recycled water shall comply with the following: (1) any irrigation runoff shall be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized by the regulatory agency; (2) spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities; and (3) drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.

D.9.2.3 Regional Policies, Plans, and Regulations

Water Quality Control Plans

The RWQCBs govern the protection of surface waters by assessing the attainment of designated beneficial uses and by issuing permits and/or certifications, such as CWA Section 401 water quality certifications and Section 402 (NPDES) permits. Each RWQCB is responsible for water quality control planning within its region through a Water Quality Control Plan, or Basin Plan. The proposed project is subject to the Region 7 (Colorado River Basin) and Region 9 (San Diego Basin) plans.

D.9.3 Environmental Effects

D.9.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

The CEQA criteria and guidelines described as follows are also used as indicators of adverse effects under NEPA. Significance criteria, or thresholds, listed in Appendix G of the CEQA Guidelines area used to determine the significance of potential impacts due to a project. Based on these criteria, a project would have a significant hydrology- or water quality-related effect on the environment if it would:

- a. Violate any water quality standards or waste discharge requirements.
- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- c. Substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or sedimentation on- or off-site.

- d. Substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.
- e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- f. Substantially degrade water quality.
- g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- j. Inundation by seiche, tsunami, or mudflow.

Use of Hydrology and Water Quality Thresholds

The Hydrology and Water Quality significance standards in Appendix G of the CEQA Guidelines (listed above) have been modified for the purpose of this analysis to better fit SDG&E's proposed project. The following impact statements collectively address criterion a) through f) above:

Construction-Related Impacts

- Stormwater runoff from temporary work areas during construction could result in increased levels of turbidity (i.e., sediment) and other common construction-related contaminants to local rivers, creeks or other water bodies (including groundwater). *[Appendix G criteria a), c), d), and f)]*
- Non-stormwater discharges during construction; including groundwater dewatering discharges, drilling muds, and/or water for dust control; could introduce contaminants into local rivers, creeks or other water bodies (including groundwater). *[Appendix G criteria a), b), and f)]*
- Construction-related water requirements, if supplied by local water purveyors that rely on groundwater, could deplete groundwater supplies or result in a lowering of the local groundwater table. For the purpose of this EIR/EIS, the County of San Diego *Guidelines for Determining Significance, Report Format and Content Requirements: Groundwater Resources* (County of San Diego 2007) shall serve as the criteria for determining the significance of groundwater impacts. An indirect significant impact

of the project could occur if imports of groundwater from off-site sources would [Appendix G criteria b]):

- Reduce the level of groundwater in storage to 50% or less as a result of groundwater extraction, as shown using a soil moisture balance, or equivalent analysis, conducted using a minimum of 30 years of precipitation data, including drought periods, or
- Result in a decrease in water level of 20 feet or more in off-site groundwater wells after a 5-year projection of drawdown, or a decrease in saturated thickness of 5% or more in the off-site wells, if site-specific data indicates water bearing fractures exist which substantiate an interval of more than 400 feet between the static water level in each off-site well and the deepest major water bearing fracture in the well(s).

Although the SDG&E proposed project may derive water from groundwater sources on federal land (e.g., tribal lands) in addition to private County lands (e.g., small local water districts), the County of San Diego guidelines provide useful thresholds for defining what would constitute substantial depletion of groundwater supplies or interference with local water table levels. Therefore, they are also used as a method of identifying the severity of adverse impacts under NEPA.

Operation and Maintenance Impacts

- Regrading and repair of access roads during construction, if not conducted in a manner that permanently addresses chronic erosion issues, would continue to expose road beds to accelerated erosion and rills, thereby increasing turbidity levels in downstream water bodies. [Appendix G criteria c), and d)]
- Typical maintenance activities, such as vegetation management, pesticide and herbicide application, and other as-needed repairs would involve materials, debris, or earthwork that could adversely affect water quality. [Appendix G criteria c), and d)]

Determinations of No Impact

Criteria g) through j) above collectively address questions related to exposure to flood hazards. However, SDG&E's proposed project would have no impact related to these issues for the following reasons:

- *SDG&E's proposed project does not involve housing or habitable structures:* Although the project alignments would cross several floodplains—as described in Section D.9.1.6—it would not actually result in an increased safety hazard to the public because it does not propose housing or other habitable structures within a floodplain.

- *The proposed poles would replace existing poles and are narrow in width:* Therefore, SDG&E's proposed project would not cause any appreciable changes in the timing, extent, or severity of flooding hazards within, adjacent or downstream of the SDGE right-of-way (ROW). This is because steel poles would replace older wood poles, would be placed hundreds of feet apart, and the width of the poles would not be sufficient to substantially block, alter or redirect flood flows.

D.9.3.2 Applicant Proposed Measures

SDG&E has proposed Applicant Proposed Measures (APMs) HYD-01 through HYD-11 which include BMPs to control erosion during construction. These APMs are part of the project, and the impact analysis assumes that all APMs will be implemented as defined in Section B.7 of this EIR/EIS.

D.9.3.3 Direct and Indirect Effects

Impact HYD-1 Result in increased levels of turbidity (i.e., sediment) and other common construction-related contaminants to local rivers, creeks, or other water bodies (including groundwater) due to stormwater runoff during construction

Fire hardening (wood-to-steel pole replacement), relocation, removal, and undergrounding of the existing overhead power and distribution lines would require construction activities and methods that have the potential to introduce sediment and other construction-related pollutants (e.g., fuels, grease, debris) into local receiving waters. This potential impact is applicable to all five existing 69-kilovolt (kV) power lines (totaling approximately 114.8 miles) and all six existing 12 kV distribution lines (totaling approximately 31.1 miles), because all cross or eventually drain to the watercourses identified in Tables D.9-1 through D.9-7. This impact analysis primarily addresses the short-term effects on construction activity, whereas Impacts HYD-5 and HYD-6 addresses the long-term effects of construction and routine maintenance activities.

Impact Mechanisms

There are two typical ways that construction activities could adversely affect water quality:

- *Land disturbances:* Land disturbances such as vegetation removal, compaction, grading, and excavation can potentially increase sediment levels in stormwater runoff by eroding soils that have been loosened or newly exposed by construction activity. Land disturbances can also decrease the infiltration capacity of soils in the work area through compaction of native soils from foot traffic, heavy machinery, and equipment laydown. Depending on the pattern, magnitude, and extent of construction activities, stormwater flows that would otherwise not be erosive, can become both channelized and accelerated, leading to soil loss,

rilling and/or gulying on site or down-gradient. Land disturbances would be required to complete access road repairs (i.e., blading, smoothing, stabilizing, and/or compacting the surface), prepare temporary work areas, establish stringing sites, install steel poles, underground existing lines, and remove existing access roads.

- *Spill and/or leaks*: Materials that could contaminate the construction area or spill or leak include diesel fuel, gasoline, lubrication oil, cement slurry, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and construction-related trash and debris. Due to the nature of the construction activities, only minor quantities of these materials would be required in any one work area along the line. The amount used would be the minimum necessary to fuel vehicles, power equipment, and complete installation activities (see Table B-8, Typical Construction Equipment by Activity, in Section B, Project Description). Fly yards, however, would need to have larger quantities of fuel on site to refuel helicopters. Improper management of hazardous materials could result in accidental spills or leaks, which could locally contaminate either shallow groundwater or the closest surface water body.

These potential impacts are predominantly temporary because all work areas would be restored to pre-construction conditions to the extent practicable (APM-HYD-10) and according to the project-specific SWPPP, further described below. Access roads improvements, however, would remain to facilitate future maintenance activities over the long-term (access road impacts are discussed in greater detail under Impact HYD-5).

The exact acreage of ground disturbance that would be required is not precisely known. However, it is expected that pole work areas would require about 45.7 acres; staging areas would require approximately 31.8 acres; trench work areas would require approximately 19 acres (over a distance of 1.3 miles); and 12 fly yards would require about 1.1 acres each. In addition, it is anticipated that road repair work would be needed along many portions of the existing access roads. Most of the temporary work areas required would overlap with locations that have been previously disturbed due to previous operation and maintenance activities along the existing lines (e.g., existing roads, turnaround/turnout areas, and pole bases), and the required disturbances would be highly dispersed both geographically and over time. This means that at any one time, a much smaller area would be disturbed, and as construction proceeds over the 5-year period, construction activities would proceed incrementally along each of the project alignments. Table B-8 (in Section B, Project Description) provides estimates of the duration of construction activities that would occur for various project components. Typical pole replacement activities would range in duration from a couple days to a week at any one pole work area depending on installation methods and local conditions.

Therefore, SDG&E's proposed project's impacts to previously undisturbed land (i.e., native soils and vegetation) would be geographically dispersed in scattered locations along the linear ROW

and generally incremental in nature. This is because temporary work areas have been located to maximize use of existing roads and previously disturbed land, and because new disturbances of native soils and vegetation would be geographically disconnected and generally confined to areas around existing roads, turnaround/turnout areas, and pole bases.

Watershed Sensitivity and Water Quality Impairments

Construction activities have the greatest potential to adversely affect water quality when conducted during the rainy season, within erosion-prone soils, and/or within sediment-sensitive watersheds or 303(d)-listed water bodies (see Section D.9.1.4 and Table D.9-7). Power line TL629, and distribution lines C442 and C440 would involve work within a “High Receiving Water Risk Watershed.” This refers to watersheds that drain either directly or indirectly to water bodies that are either (1) 303(d) listed as being impaired for sediment/siltation, (2) have an EPA-approved, sediment-related TMDL, or (3) have the existing beneficial uses of SPAWN (Fish Spawning), MIG (Fish Migration), and COLD (Cold Water Habitat). Although none have approved TMDLs, downstream beneficial uses could be adversely affected through violation of RWQCB water quality objectives for suspended solids, TDS, sediment, and turbidity.

Furthermore, as indicated in Table D.9-8, although all ground-disturbing construction activities would expose soils to erosion, certain soils are more prone to generating runoff, due to their unique physical characteristics such as low infiltration rates, restricting layers, or shallow groundwater. The project is predominantly underlain by soils with hydrologic groups B and C, which indicate a moderate susceptibility to erosion. However, certain segments, such as C78 and TL6923 are underlain by substantial areas of hydrologic group D soils with a high runoff potential. Construction activities within these areas have a greater potential to result in erosion and sedimentation if rainfall occurs during the construction period. As indicated above, most pole replacement activities would take place at any one pole for a matter of days before moving on to the next pole; however, staging area, fly yards, and other longer lasting land disturbances would have a greater potential to be exposed to rainfall because they would be used for a longer duration.

Pollutant categories that construction activities have the potential to release include sediment, debris (trash and litter), oils and grease, fuels, and substances that can change the pH or oxygen levels (e.g., decaying organic matter, concrete washouts). The creeks that have impairments under Section 303(d) of the CWA that project construction activities have the potential to contribute to are:

- San Luis Rey River: Much of the existing TL682 alignment is parallel to the San Luis Rey River, which has a number of water quality impairments including salinity (chloride and TDS), pathogens (enterococcus and fecal coliform), toxicity and phosphorus, and nutrients

(total nitrogen as N). The construction activities planned for the alignment would not include activities with the potential to contribute pathogens, toxicity or nutrients. However, runoff from construction sites could potentially introduce additional suspended solids and total dissolved solids.

- Pine Valley Creek: Distribution line C442 crosses a segment of Pine Creek at two locations and closely parallels the creek in several other locations where it is identified as impaired for turbidity (sediment). Distribution line C440 does not cross the creek but is within its watershed and thus could also contribute sediment.
- Loveland Reservoir: The Loveland Reservoir near TL625 is listed as impaired for aluminum, manganese, dissolved oxygen, and pH. TL625 spans a few of the northern branches of this reservoir along Japatul Valley Road. The closest existing pole along any of the proposed power line replacement projects is located approximately 145 feet from the reservoir. Runoff from construction sites could potentially adversely affect dissolved oxygen levels and pH.

Cottonwood creek is also listed as impaired for selenium, toxicity, and DDT (pesticides), but construction activities would not involve discharges of these substances, which are normally associated with agricultural activities and urban runoff/storm sewers.

Impact Reduction Strategies Built into the Project Design

Although construction activities described above have the potential to contribute pollutants to local receiving waters, compliance with state and local water quality regulations and integration of APMs into project design and construction would ensure that potential impacts are minimized to the greatest extent feasible. The applicant would be required to comply with the SWRCB's NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended) because each of the power line replacement projects would exceed 1 acre of land disturbance. Accordingly, the applicant must prepare a project-specific SWPPP before construction begins, and it must be kept on the construction site(s) throughout the construction process. The SWPPP must identify all pollutant sources and non-stormwater discharges associated with the construction activity, and must identify water quality BMPs that are appropriate for the construction activities proposed (i.e., linear underground/overhead projects [LUP]). The type and number of BMPs are also based on a project-specific risk determination which takes into account both local soil erosivity and receiving water risk. The SWPPP must be developed and implemented by Qualified SWPPP Practitioner(s), who will evaluate site-specific conditions and the water quality sensitivity of receiving waters to choose the most appropriate BMPs. The SWPPP must

also include numerous compliance monitoring and reporting procedures that ensure that relevant water quality standards are being met.

APM HYD-05 acknowledges the requirement that the project must prepare a SWPPP, and many of the other APMs listed in section B.7 of this EIR/EIS represent examples of BMPs that SDG&E will implement as part of the SWPPP (including APM HYD-01, APM HYD-02, APM HYD-03, APM HYD-06, APM HYD-09, and APM HYD-10). There are a number of lists and sources of water quality BMPs for the control of construction-related pollutants. Two particularly relevant sources that will be used in the selection and design of BMPs include SDG&E's own BMP manual, which provide practical BMPs that are well-suited for linear construction of electrical infrastructure, as well as the Forest Service Southwest Region's *Water Quality Management for Forest System Lands in California, Best Management Practices* document, which addresses typical water quality design challenges for roads and facilities on Forest Service land. These BMP manuals will be used as appropriate per APM HYD-07 and APM HYD-08. Additionally, SDG&E's proposed project's general APMs (APM GEN-01, APM-GEN-03, APM GEN-04, and APM GEN-05) address construction site cleanup and debris management and other BMPs, which would be protective of water quality.

Standard BMPs typically included in a construction SWPPP include perimeter controls, stabilization of exposed soils not actively being used for construction, proper use and containment of hazardous materials, preventing release of fuels and greases (e.g., containment berms, controlled storage, proper labeling, drip pans under vehicles), and good housekeeping practices. The exact location and type of BMPs to be installed during construction would depend on site-specific conditions, construction schedule, and proposed activities, all of which would be outlined in the SWPPP.

The SWRCB designated the Forest Service as the WQMA for all activities on National Forest System lands in California, meaning the Forest Service has the authority to implement state and federal water quality laws within the CNF. The water quality management best practices manual developed by the Forest Service Pacific Southwest Region (Region 5) describes current Forest Service practices and procedures for protection of water resources. Implementation of the practices and procedures in the manual (per APM HYD-07) meet the Forest Service's obligations as a designated WQMA.

Conclusion

The required implementation of a SWPPP per the SWRCB Construction General Permit and implementation of APMs HYD-01 through HYD-10 as described in Section B.7 of this EIR/EIS would ensure that construction activities associated with proposed project would not violate any federal, state, or regional water quality standards or waste discharge requirements or otherwise

substantially degrade surface or groundwater quality during construction. Implementation of Mitigation Measure (MM) MM HYD-1, which stipulates that the permittee is responsible for the prevention and control of soil erosion and gulying, would further ensure the implementation and enforcement of these standard procedures, and therefore adverse and significant impacts to water quality during construction (Impact HYD-1) would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

MM HYD-1 Erosion Control Plan/Stormwater Pollution Prevention Plan. For project components on federal land, SDG&E shall develop and implement an Erosion Control Plan (ECP) for construction, operations, and maintenance activities in order to prevent and control soil erosion and gulying on federal land. The ECP shall include Forest Service best management practices specific to re-vegetation requirements (scarifying the soil, and fertilizing, seeding and/or mulching, as required to achieve proper post-construction site stabilization); integrate requirements from the Construction General Permit, which likewise requires permittees to demonstrate implementation of post-construction cover requirements for final stabilization (i.e., re-vegetation); and integrate best management practices from the project's Stormwater Pollution Prevention Plan (see below). Additionally, the ECP shall compliment restoration goals and objectives identified in the Habitat Restoration Plan, as required under MM BIO-4. The ECP shall be provided to the California Public Utilities Commission (CPUC) for review prior to the Notice to Proceed issuance. The ECP shall be submitted to the Forest Service for review and approval prior to Notice to Proceed issuance.

SDG&E shall develop a Storm Water Pollution Prevention Plan (SWPPP) for the project to reduce soil erosion during construction. The SWPPP and verification of submittal to the RWQCB shall be submitted to the CPUC and Forest Service prior to Notice to Proceed issuance. SDG&E shall provide CPUC and Forest Service with subsequent amendments to the SWPPP within 48 hours of the SWPPP amendment being submitted to the RWQCB; amendments shall be provided to the Forest Service to append to the ECP. In weekly construction compliance reports, SDG&E shall note when Storm Water Construction Site Inspection Report Forms have been posted to the Storm Water Multiple Application and Report Tracking System (SMARTS) following storm events.

Impact HYD-2 Introduce contaminants into local rivers, creeks or other water bodies (including groundwater) due to non-stormwater discharges during construction

Non-stormwater discharges during construction could include construction-related dewatering discharges (to keep excavations free of water) drilling muds, and/or dust control. If non-stormwater discharges enter downstream creeks or groundwater, they could potentially degrade water quality and/or violate water quality objectives of the applicable RWQCB Basin Plan.

Dewatering

The majority of construction-related grading and excavation activities would be unlikely to encounter groundwater, due to their shallow nature and the arid setting. Except for areas immediately adjacent to flowing streams, the region is in a climate and geologic setting that is unlikely to feature a shallow groundwater table. Nevertheless, the potential to encounter shallow groundwater is highly dependent on local geologic and climatic conditions and the depth of construction-related excavations, and therefore it is possible that construction-related dewatering discharges could be required. Dewatering is more likely to be required for undergrounding activities because they would require excavation of linear trenches. Various lengths of undergrounding are proposed for C449 (1.8 miles), C440 (8.4 miles), C79 (2.8 miles), and TL629 (700 feet). As detailed in Section D.7, Public Health and Safety, there is no evidence of existing hazardous materials or contamination within the temporary work areas, which means that, if encountered, groundwater would most likely be free of contaminants, and discharge to surface water would not likely violate Basin Plan standards.

Nonetheless, any dewatering activity that would discharge to the land surface would need to comply with the provisions of the SWPPP which will be required to address non-stormwater discharges as described under Impact HYD-1. SDG&E's BMP manual (BMP 3-01) also acknowledges that discharges of non-stormwater from a trench or excavation that contain sediment or other pollutants directly to a sanitary sewer, storm drain, creek bed, or other receiving water is prohibited. The preferred method of discharge would be to a landscaped, vegetated, or soil area, or into an infiltration basin, so long as the water only contains sediment (no other pollutants) and that all sediment would filter out. If there is evidence that other pollutants are present in the groundwater, the applicant would be required to obtain a separate permit from the RWQCB or local jurisdiction. In such cases, the applicant may be required to use a vacuum truck and haul the water to an authorized discharge location or implement various methods of treatment on site prior to discharging the water.

Implementation of the SWPPP (APM HYD-05) and the applicant's other APMs (APM HYD-08 and APM HYD-09) would ensure that non-stormwater discharges from construction site dewatering would not violate basin plan objectives or substantially degrade water quality. Implementation of Mitigation Measure MM HYD-1 would further ensure the implementation and enforcement of these standard procedures; therefore, adverse and significant impacts to

water quality during construction (Impact HYD-2) due to dewatering would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Dust Control

Non-stormwater discharges during construction would also include periodic application of water for dust control purposes. Since the practice of dust control is necessary during windy and dry periods to prevent wind erosion and dust plumes, water would be applied in sufficient quantities to wet the soil, but not so excessively as to produce runoff from the construction site. Water applied for dust control would either quickly evaporate or locally infiltrate into shallow surface soils. This is reflected in SDG&E's BMP manual (BMP 4-08), which states that water would only be applied in a manner that does not generate runoff (APM HYD-08). Therefore, water applied for dust control would not result in appreciable effects on groundwater or surface water features and thus has little to no potential to cause or contribute to exceedances of water quality objectives contained in the relevant Basin Plan, regardless of whether off-site sources of water are imported for the purposes of dust control.

If off-site recycled water is used for dust control or other purposes, SDG&E would be required to comply with Title 22 standards for the use of recycled water for "other" purposes, which includes soil compaction, concrete mixing, and dust control (22 CCR Division 4, Chapter 3, Article 3, Section 60307). This includes the requirement to use at least disinfected secondary-23 recycled water (see regulatory setting for definition). Title 22 also imposes limits on the use of recycled water intended to be protective of domestic wells on nearby properties (22 CCR Division 4, Chapter 3, Article 4, Section 60310). For example, the Padre Dam Municipal Water district provides recycled water to construction projects (including for use in dust control and grading) only because it has been authorized to do so under San Diego RWQCB Order No. 97-49, Waste Discharge Requirements and Water Reclamation Requirements for the Production and Purveyance of Recycled Water for Padre Dam Municipal Water District, San Diego County. SDG&E's BMP manual (BMP 4-08), also states that reclaimed water used for dust control would meet California Department of Health Services and RWQCB requirements.

Implementation of the SWPPP (APM HYD-05) and the applicant's other APMs (APM HYD-07, APM HYD-08, and APM HYD-09) would ensure that dust control activities would not violate basin plan objectives or substantially degrade water quality. Implementation of Mitigation Measure MM HYD-1 would further ensure the implementation and enforcement of these standard procedures; therefore, adverse and significant impacts to water quality during construction (Impact HYD-2) due to dust control would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact HYD-3 Deplete groundwater supplies or result in a lowering of the local groundwater table

SDG&E's proposed project would require water for the purposes of dust-control and micro-pile foundation installation during construction and insulator washing during periodic maintenance. Water for both construction and maintenance purposes would be sourced from off site. SDG&E's proposed project would not use or develop on-site water wells. If the water supply from off-site is sourced from groundwater wells and is voluminous relative to the well's typical usage, SDG&E's proposed project could indirectly result in adverse effects on aquifer storage or result in well interference (i.e., lowering of water levels) in the local area surrounding the production well(s) used. Because the power line replacement projects are geographically dispersed over a wide area, water supplied for construction and maintenance activities would likely come from several sources depending on the location of specific activities along the power and distribution line alignments. Water imports may include use of surface water or reclaimed water, neither of which would adversely affect groundwater resources. Refer to Section D.12, Public Services, of this EIR/EIS, subsection D.12.1.2 for a listing of potential sources of water supply that have been identified by SDG&E. Because SDG&E has not identified specific water sources or obtained formal commitments from water purveyors, this analysis assumes as a worst-case scenario (related to groundwater resources) that the project's construction-related water demands would be served entirely by local groundwater purveyors (i.e., private/tribal water users or small municipal/community water districts) in eastern San Diego County.

Construction

Construction-related water usage is needed mainly to provide for dust control and minimal earthwork activities (e.g., concrete mixing for installation of micro-pile foundations). Water usage can be highly variable depending on climatic conditions, soil types, fire-threat conditions vegetation types, among a host of variables. The Applicant estimated water usage requirements for the proposed power line replacement projects by examining several factors, including; the duration of each project phase, the number of pole work areas, miles of conductor, miles of access road, or miles of undergrounding to be included in each phase; and the average water requirements per day for each type of work to be conducted. Based on these factors, the applicant estimates that approximately 5 to 10 million gallons of water per year will be required to complete all phases of SDG&E's proposed projects' construction over an approximate 5-year period. SDG&E intends to use a variety of water sources, both commercial and private.

The majority of the proposed power line replacement projects would be located within a groundwater-dependent portion of San Diego County. Examples of small community water districts near SDG&E's proposed projects that are groundwater-dependent include Descanso,

Pine Valley Mutual Water Company, Live Oak Springs, Jacumba Community Service District, and La Mesa and/or El Cajon local community services districts. Most of the small water districts are located along or near TL629, C442, and C440. The eastern ends of TL682 and TL625B would be in the service area of member agencies of the San Diego County Water Authority (e.g., Padre Dam Municipal Water District and Yuima/Pauma Municipal Water District), which derive water supplies primarily from surface water diversions. There are private domestic wells scattered throughout the non-federal lands in the project area.

Given that the applicant would have a range of options to meet water supply needs, it is estimated that short-term construction demands can be met using local sources of groundwater.

However, because the estimated water demands are uncertain and specific sources have not been identified by the applicant, off-site imports of water are assumed to represent a potentially significant and adverse impact with respect to groundwater. Implementation of MM HYD-2a and MM HYD-2b would mitigate adverse impacts to groundwater supply under NEPA and under CEQA, impacts would be reduced to a less-than-significant level (Class II) by providing the lead agencies with documentation of purchased water sources and groundwater evaluations demonstrating that use of such sources would not result in significant impacts to groundwater in storage or neighboring wells.

Operation and Maintenance

Water requirements for the operation and maintenance of SDG&E's proposed project would include dust control required during periodic access road maintenance and for insulator washing. SDG&E has estimated long-term water usage to be 130,000 gallons per year to be purchased from local sources. Given that implementation of Mitigation Measures MM HYD-2a and MM HYD-2b would reduce the short term impacts of construction, which are greater in magnitude and intensity, they would likewise reduce the long-term impacts of water usage to not adverse under NEPA and less than significant with mitigation under CEQA (Class II).

MM HYD-2a Documentation of Purchased Water Source(s). For water that is to be purchased from one or more public or private water/utility district(s), private landowners, or from tribes, SDG&E shall provide to the CPUC written documentation from such district(s) and/or landowners indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The documentation shall also indicate the type of water (potable or reclaimed) and the specific source of the water (groundwater well or surface diversions). The sources and amounts of water to be obtained by SDG&E shall be documented in a water supply plan to be submitted to the CPUC as a condition of receiving a permit to construct.

MM HYD-2b **Groundwater Evaluations of Off-Site Sources.** For identified water sources that derive their water supply from groundwater, SDG&E shall commission a groundwater study by a registered/certified hydrogeologist, as reviewed and approved by CPUC, to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owners' permission) in the vicinity of proposed well location/water sources and to verify that the proposed source is capable of supplying the amount of water needed. The groundwater study shall evaluate whether the volume and duration of the proposed groundwater use would exceed County of San Diego thresholds for impacts with respect to groundwater supply and well interference. If the evaluation indicates the potential for significant impacts, the registered/certified hydrogeologist shall recommend feasible mitigation measures (e.g., a groundwater monitoring program) to avoid exceeding applicable thresholds. The groundwater evaluation shall be provided along with the documentation of purchased water sources, and the CPUC shall not authorize construction of the project unless such documentation has been provided by SDG&E and approved by CPUC. If the evaluation finds that impacts cannot be avoided given the volume and duration of the proposed groundwater use, the CPUC will not authorize use of the water source and shall require SDG&E to seek other viable sources of water.

Total confirmed water supplies from the combination of above documented sources shall equal the total gallons of water needed through construction of the project. SDG&E shall submit monthly water logs documenting compliance with the water supply plan and groundwater thresholds.

Impact HYD-4 Re-grading and repair of access roads during construction and maintenance, if not conducted in a manner that permanently addresses chronic erosion issues, would continue to expose road beds to accelerated erosion and rills, thereby increasing turbidity levels in downstream water bodies.

SDG&E maintains a network of approximately 45 miles of exclusive use access roads within and outside of the CNF used to operate and maintain SDG&E's existing electrical facilities. As described in Section A, Introduction, of this EIR/EIS, numerous comments and photographs were received from the public in response to the Notice of Preparation for SDG&E's proposed project relating concerns about the condition of SDG&E's network of maintenance roads, particularly in the vicinity of Cedar and Boulder creeks, along TL626. No new roads are proposed as part of the project; rather existing roads will be maintained and repaired (i.e., smoothing, stabilizing, and resurfacing) as necessary to facilitate construction activities, and some

existing road segments will be removed. Access to poles that are isolated from existing roads would be accomplished using helicopters and/or on-foot.

Access Road Removals

Road removals proposed as part of the project (approximately 11 miles) would be beneficial from a water quality perspective because any erosion and sedimentation already occurring along the roads would be reduced or eliminated. In particular, the removal of the access road associated with C440, due to its location partially within a sediment-sensitive watershed (Pine Creek Valley watershed), could greatly reduce the potential for continuing erosion and sedimentation within the watershed. In addition, the road removal associated with C79 would occur in areas that cut steeply across the topography. Table D.9-9 shows the length and slope of the SDG&E access roads to be removed, and can be considered to approximate the magnitude of beneficial impacts.

Table D.9-9
SDG&E Exclusive-Use Access Roads to be Removed,
by Distribution Line and Grade (Miles)

Exclusive Access Road Grade	C440	C442	C449	C79	Total (miles) / Percent
0%–10%	0.74	0.03	1.79	0.45	3.01 / 27%
10%–25%	1.92	0.36	0.45	1.73	4.45 / 40%
25%–40%	1.08	0.16	0.07	1.56	2.88 / 26%
>40%	0.30	0.01	0.01	0.44	0.76 / 7%
Total	4.04	0.56	2.31	4.18	11.10 / 100%

The roads would be decommissioned in accordance with Forest Service BMPs (APM HYD-07) for road removal. Implementation of APM HYD-07 would ensure that removal and restoration of existing access roads would not violate basin plan objectives or substantially degrade water quality. Implementation of Mitigation Measures MM HYD-1 and MM HYD-3, which stipulates that the permittee is responsible for the prevention and control of soil erosion and gully, would further ensure the implementation and enforcement of these standard procedures; therefore, adverse and significant impacts to water quality (Impact HYD-4) due to access road removal would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

MM HYD-3 Implement Access Road Decommissioning Best Practices. SDG&E shall be responsible for the prevention and control of soil erosion and gully in areas proposed for access road removal and shall implement the following activities:

- Remove any flagging, signs, or other markings within or around sensitive resource areas after road removal, except where such signs are necessary for long-term access control and interpretation purposes.
- Remove temporary fill and structures to the extent practical.
- Provide appropriate access control for temporary work areas, such as fencing, posts, and/or signage, and ensure gates are locked in accordance with MM-REC-1 to minimize unauthorized traffic and/or access road circumvention during construction.
- Ensure that the road surface is in stable condition when the road is closed. Seed and fertilize disturbed surfaces as necessary.
- To facilitate regeneration, back blade or otherwise scarify road beds where appropriate. Use native grass or forb mixes if available.
- All earthwork shall be confined to the road corridor and no soil shall be sidecast onto adjacent areas; if necessary, excess soil material shall be incorporated into restoration activities or hauled off site to an approved disposal facility.

Implementation of MM HYD-3 would ensure that long-term effects of road removal on hydrology and water quality would be beneficial, as the former road beds would be recolonized with vegetation, and natural soil forming processes would be allowed to resume.

Access Road Regrading and Maintenance

Construction and long-term maintenance activities along the remaining portion of the existing access roads would continue to result in periodic sediment delivery into receiving waters. Because SDG&E's exclusive-use access roads are generally sited within the existing power line and distribution line ROWs, the associated access roads often cut a linear path across the landscape without regard to topography or the typical practice of establishing roads as close to parallel to elevation contours as possible. As a result, many portions of the access roads exceed grades that would be considered acceptable under modern standards and have experienced significant erosion issues and remain chronic problems and sources. For example, Forest Service guidelines recommend avoiding construction of roads with grades in excess of 10%. In addition, San Diego County's minimum design and construction requirements for private roads allow road grades of up to 20%, or under certain exceptions, up to 25% (which would require special authorization). Although these standards do not apply to SDG&E's proposed project because 1) no new roads are proposed, and 2) no discretionary action from the County of San Diego is required, they indicate what is typically considered acceptable under modern design standards.

For comparison, Table D.9-10 provides road mileage by grade and demonstrates the substantial steepness of the existing network of access roads maintained by SGD&E. Although SDG&E’s proposed project would represent a continuation of existing conditions and thus may not necessarily worsen or create new areas of erosion or rilling relative to what is currently taking place, the MSUP would authorize the continued use of SDG&E’s exclusive-use roads and long-term maintenance activities, which would include periodic road reconditioning. In areas experiencing chronic erosion issues, this essentially means periodically importing soil material to fill in and compact ruts, potholes, and other erosional features. Over the long-term, and with heavy rains periodically washing the material away, the amount of sediment entering nearby creeks could be significant for activities located within sediment-sensitive watersheds, within or immediately adjacent to resource conservation areas (RCAs), or along exceedingly steep sections of the access roads. The primary consideration in determining the severity of the issue is the degree to which erosional features are connected to intermittent/perennial creeks and/or high-order drainages. As shown in Table D.9-10, the access roads associated with TL625 and TL626 are particularly steep with around 40% of the total length of their access roads exceeding 25% grade.

Table D.9-10
SDG&E Exclusive Use Access Roads to be Maintained / Repaired,
by Distribution Line and Grade (Miles)

Exclusive Access Road Grade	C157	C440	C442	C449	C78	C79	TL625	TL626	TL629	TL682	TL6923	Total
0%–10%	0.16	0.19	1.13	0.39	0.03	0.00	1.70	1.35	3.20	0.10	0.24	8.50/24%
10%–25%	0.23	0.42	1.46	0.03	0.02	0.00	5.19	4.51	3.14	0.66	0.79	16.45/46%
25%–40%	0.06	0.02	0.66	0.00	0.01	0.00	3.16	2.95	0.51	0.28	0.22	7.86/22%
>40%	0.00	0.00	0.23	0.00	0.00	0.00	1.18	1.16	0.12	0.05	0.07	2.82/8%
Total	0.45	0.63	3.47	0.42	0.06	0.00	11.23	9.97	6.97	1.09	1.33	35.63

SDG&E power and distribution lines within CNF where no improvements are planned would also continue to be maintained consistent with current practice, including periodic road reconditioning. Access roads associated with these lines, where present, and where steep or poorly located, are also likely to be contributing excessive sediment loads to local creeks and streams, especially where such lines are located within RCAs. Although the extent, magnitude, and severity of adverse impacts would not change in these locations, several are located within RCAs or sediment-sensitive watersheds and also have unpaved access roads that may be contributing to higher levels of turbidity in local receiving waters than might otherwise occur under natural conditions.

These ongoing impacts would continue with issuance of the MSUP and are considered adverse under NEPA and significant under CEQA and therefore, in addition to complying with existing regulations and implementing the APMs, the applicant shall implement MM HYD-4. MM HYD-4 would assess the condition of the existing road network and would ensure that, where necessary, access roads are redesigned by a qualified professional engineer or engineering geologist to adequately handle stormwater runoff. Redesign of problematic road segments, as identified in the condition assessment to better handle stormwater runoff, would substantially reduce the amount of yearly imports of fill and thus would also reduce the potential for sedimentation within nearby waterways.

MM HYD-4 Access Road Condition Evaluation and Repair Design Report. Planned grading and repair activities along SDG&E exclusive-use access roads that a) exceed grades of 15% (over a minimum distance of 100 feet), b) are within resource conservation areas (RCAs), or c) are anywhere within a sediment-sensitive watershed (as defined by the SWRCB) shall be evaluated by a qualified professional (e.g., PG, PE, or CEG reviewed and approved by the CPUC and the Forest Service) and identify areas experiencing chronic erosion and drainage issues. The qualified professional shall design an engineered solution(s) to be implemented within the existing access roadway disturbance area in accordance with Forest Service standards, as described in Forest Service Handbook 2509.22 (Section 12.2), for each area determined to experience chronic erosion and/or drainage issues. The designed solution(s) shall be included into the approved project to ensure the avoidance or minimization of substantial damage or soil loss along the identified road segments. .

Examples of such solutions could include, but are not limited to, the following:

- Crowning road sections with gentle slopes to prevent standing water on the road.
- Outsloping roads at 3%–5% wherever possible.
- Where required for proper maneuvering and safety, insloping roads at 3%–5% into properly designed ditches.
- Installing rolling dips, ditch relief culverts, and/or water bars at intervals appropriate for the road grade and the soil erosivity.
- Minimizing the number of water crossings and maintaining crossings as close to a 90-degree angle as possible to the streambed.

- Constructing perennial and seasonal/ephemeral stream crossings so as not to change the cross-sectional area of the stream channel or impede fish migration.
- Constructing perennial and seasonal/ephemeral stream crossings with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap, and/or gabions).

The Access Road Condition Evaluation and Repair Design Report shall identify locations, if any, where no feasible and/or effective solutions can be implemented to adequately handle runoff or comply with Forest Service soil and water quality management standards as contained in Forest Service Handbook 2509.22 (Section 12.2).

In these locations, the qualified professional shall recommend options in the report that would minimize project-related and future runoff issues, such as eliminating use of the road for the purposes of the project (i.e., requiring access by helicopter), or re-aligning the problematic segment of road and decommissioning/restoring this segment in accordance with MM HYD-3 (decommissioning). Should CPUC and Forest Service agree that the latter recommendation (or both recommendations together) is most appropriate, CPUC and Forest service may request that the qualified professional design an engineered solution(s) for the road segment re-alignment (designed in accordance with the aforementioned Forest Service standards). The re-alignment would be included into the final report and into the project design.

Construction of the power line replacement projects shall not proceed until the report has been reviewed and approved by the Forest Service with concurrence from the CPUC. In the event there are disputes regarding specific problem locations, CPUC and Forest Service may elect to proceed with the projects; however, SDG&E shall not work in areas under dispute until resolution is achieved.

With some exceptions described below, implementation of MM HYD-4 would mitigate impacts from construction-related road repairs and long-term maintenance under NEPA; under CEQA, this impact would be less than significant with mitigation (Class II).

C79, C442, TL625, TL626, and TL629

For road segments within the Pine Creek Watershed (i.e., TL629 and C442), due to the watershed's impairment for sediment, as well as certain segments along lines C79, TL625, and TL626, due to extended segments of very steep terrain (e.g., greater than 25%), there may be no way to feasibly avoid substantial long-term effects on erosion and sedimentation without

decommissioning (removing) or realigning the road segment to a lower slope. This is because the effectiveness of typical engineered drainage designs—such as crowning, out-sloping and installation of rolling dips, ditch relief culverts, and/or water bars—decreases substantially for long sections of very steep access roads. Public responses to the Notice of Preparation included supporting evidence (photographs, descriptions, and slope measurements) to show segments of TL626 in the Boulder Creek vicinity are experiencing substantial erosion and sedimentation every winter during strong storms. Where conditions are similar along access roads associated with other lines, similar effects may occur.

The terrain analysis along the exclusive-use SDG&E access roads—summarized in Table D.9-10—was conducted to identify locations along the proposed lines that exceed grades of 25% for appreciable distances. Sections likely to be especially problematic to fix, even with implementation of engineered designs (i.e., MM HYD-4), include:

- TL626 south of Eagle Creek Road and north of Boulder Creek Road: Access roads for this segment of the line cross steep terrain on either side of Boulder Creek, Cedar Creek, and Kelly Creek along the flanks of Sill Hill, Mineral Hill, and Sunshine Mountain. Steeply sloped sections of the access roads exceed 400 feet in places.
- TL625 in the Vicinity of Barber Mountain Road: Access roads for this segment of the line cross steep terrain on the sides of Barber Mountain, across Pats Canyon, and near Wilson Creek.
- TL625 north of Lyons Valley Road and south of Carveacre Road: Access roads for this segment of the line crosses steep terrain east of Lawson and Gaskill Peaks and west of the Pine Creek Wilderness.
- C442 east of Oak Valley and south of I-8, on the western flanks of Long Peak, cut a straight path over hilly terrain, resulting in local segments along 1 mile of the access roads.
- Short segments of TL629 on either side of Cameron Valley and east of Pine Valley have grades that exceed 25%

The exact location and length of road segments that are too steep to implement in-place design fixes would be determined by a qualified professional reviewed and approved by the CPUC and the Forest Service (e.g., PG, PE, or CEG) as part of the Access Road Condition Evaluation and Repair Design Report (MM HYD-4). However, for the reasons stated above, the effects of such road segments under NEPA would be adverse and unavoidable, and under CEQA, this impact (Impact HYD-4) would be significant and unavoidable (Class I).

Impact HYD-5 Adversely affect water quality due to typical maintenance activities, such as vegetation management, pesticide, and herbicide application

As part of routine maintenance, SDG&E removes flammable trash, debris, or other materials; grass; herbaceous and brush vegetation; and limbs and foliage of living trees to a distance of 10 horizontal feet from the outer circumference of the pole. For all steel poles, SDG&E clears to bare ground an approximately 5-foot-radius around the poles that have exposed, external ground wires, and trims all encroaching trees or other vegetation within approximately 10 feet of the pole. Vegetation would be removed using mechanical equipment, such as chainsaws, weed trimmers, rakes, shovels, and brush hooks. In addition, SDG&E may utilize pesticides and herbicides in specific areas as needed, and in accordance with product label specifications. Application of pesticides generally requires one person in a pick-up truck and takes only minutes to spray around the base of the pole—within a radius of approximately 10 feet for distribution and 20 feet for power line poles—subject to the vegetation clearance requirements described in the Operation Plan. These activities, particularly herbicide and pesticide application, could potentially result in degradation of downstream water quality, and therefore Mitigation Measure MM HYD-5 is proposed.

MM HYD-5 Procedural Requirements for Pesticide and Herbicide Applications. Pesticide and herbicide application shall occur under the direction of a professional pesticide applicator with either a Qualified Applicator License (QAL) or an Agricultural Pest Control Adviser License in the State of California (see MM BIO-32 for additional biological training requirements for applicators with a QAL). Label instructions and all applicable laws and regulations shall be strictly followed in the application of pesticides and herbicides and disposal of excess materials and containers. Only those materials registered by the EPA for the specific purpose planned shall be authorized for use. Before applying any pesticides or herbicides on National Forest System land, SDG&E shall receive approval from the Forest Service for all pesticides and herbicides proposed for use on National Forest System land prior to their application on these lands. For portions of the project crossing BLM lands, SDGE shall obtain a BLM Pesticide Use Permit as well. Additionally, prior to any pesticide or herbicide use, SDG&E shall submit an anticipated schedule to the Forest Service for planned use within the CNF on an annual basis, or more frequently as needed, and will work with the Forest Service to determine the appropriate pesticide and herbicide per location.

Given the coordination and approvals required, as described in Mitigation Measure MM HYD-5, and that herbicides and pesticides would be used in spot treatment only (e.g. tree

stumps and branches), the impacts to water quality would be immeasurable, and therefore not adverse under NEPA with required mitigation and less than significant with mitigation under CEQA (Class II).

C440, C449, and TL 629C

Because Cottonwood Creek is impaired with pesticides under Section 303(d) of the CWA, even minor or negligible contributions would be considered unacceptable, and would represent a violation of water quality objectives and CWA Section 303(d). No other creek or water body affected by SDG&E's proposed project is impaired with herbicides or pesticides, and thus this impact is limited to maintenance areas along C440, C449, and TL 629C that are within the watershed of Cottonwood Creek. Some of the proposed poles, while not located directly within the active creek bed, are located within the Forest Service riparian conservation area for the creek. Operation and maintenance activities involving pesticide application in these areas would have the greatest potential to violate water quality objectives. Therefore, Impact HYD-5 would be adverse under NEPA and potentially significant under CEQA for maintenance areas along C440, C449, and TL 629C. Implementation of MM HYD-6, which would prohibit use of pesticides within RCAs along Cottonwood Creek, would avoid any contribution of pesticides as a result of pesticide or herbicide application and thus would mitigate this impact under NEPA, and under CEQA, the impact would be less than significant with mitigation (Class II).

MM HYD-6 Pesticide Use Prohibition along Cottonwood Creek (C440, C449, and TL629C). SDG&E shall not use pesticides in routine operations and maintenance activities on poles located within the RCAs associated with Cottonwood Creek. Instead, SDG&E must achieve pest management goals using non-chemical methods.

D.9.4 Forest Service Proposed Actions

D.9.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Each of the five Forest Service proposed actions would relocate a segment of the TL626. The farthest relocation would be approximately 2 miles east of the existing alignment. The hydrological and water quality study area would be similar to SDG&E's proposed project; therefore, the environmental setting is assumed to be similar to that described in Sections D.9.1 and D.9.2 except where noted.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts HYD-1 and HYD-2: Options 1 and 2 would reroute a segment of TL626 to the east along a new undisturbed ROW approximately 5.5 miles (Option 1) and 5.6 miles (Option 2; Figure B-4a). While these options would avoid identified HYD-1 and HYD-2 impacts associated with SDG&E's replacement of TL626 as discussed in Section D.9.3.3, they would also require construction of approximately 3.9 miles of new access roads to reach new pole locations. All other project components would remain the same. While no hydrological surface features have been identified within the proposed alignments for Options 1 and 2, there are a number of hydrological features including Sandy Creek, Cedar Creek, and Dehr Creek within 50 to 200 feet of the proposed alignments that could be impacted by construction. Because the new ROW will require a greater disturbance area due to the longer distance and need for new access roads compared to reconstruction of TL626 in place as proposed, an incremental increase in water quality impacts would occur during short-term construction activities due to additional runoff, sedimentation, or erosion. Similar to SDG&E's proposed project, it is anticipated that HYD-1 and HYD-2 impacts would be reduced with implementation of APM HYD-01 through APM HYD-10, which would ensure that construction activities would not violate any federal, state, or regional water quality standards or waste discharge requirements, and with implementation of MM HYD-1, which stipulates SDG&E is responsible for preparing a SWPPP and the prevention and control of soil erosion and gulying. Therefore, adverse and significant impacts (Impacts HYD-1 and HYD-2) would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact HYD-3: The nature of impacts with respect to off-site water imports associated with options 1 and 2 would be similar to those described in Section D.9.3.3 for SDG&E's proposed project for construction, operations, and maintenance. There could be an incremental increase in the amount of water needed during construction for dust control purposes due to the longer alignment under options 1 and 2. However, impacts to groundwater supply would reflect the impact findings similar to those discussed in Section D.9.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM HYD-2a and MM HYD-2b would mitigate adverse impacts to groundwater supply (Impact HYD-3) under NEPA, and under CEQA, impacts would be reduced to a less-than-significant level (Class II) by providing the lead agencies with documentation of purchased water sources and groundwater evaluations demonstrating that use of such sources would not result in significant impacts to groundwater in storage or neighboring wells.

Impact HYD-4: Options 1 and 2 would reroute a segment of TL626 to the east along a new undisturbed ROW. While these options, as discussed in Section D.9.3.3, would avoid identified HYD-4 impacts determined to be significant and unavoidable (Class I, due to steepness of creek crossings) for the section of TL626 that would be relocated under these alternative routes, they would require the construction of 3.9 miles of new access roads. Construction and long-term maintenance activities along these access roads could result in periodic sediment delivery into receiving waters and therefore is considered adverse under NEPA and significant under CEQA. While these options would result in the development of new and longer access roads, the access roads would be built in far more moderate terrain with a limited number of stream crossings compared to SDG&E's proposed project. Therefore, with implementation of MM HYD-4, Impact HYD-4 would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact HYD-5: Vegetation management impacts would reflect similar impact findings previously discussed in Section D.9.3.3 for SDG&E's proposed project. Options 1 and 2 would require similar routine maintenance and vegetation management practices as compared to SDG&E's proposed project. Therefore, with implementation of MM HYD-5, which provides procedural requirements for pesticide and herbicide applications, adverse and significant impacts would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II). This alternative is not within the watershed of a creek impaired with pesticides or herbicides under CWA Section 303(d).

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impacts HYD-1 and HYD-2: While options 3a and 3b would avoid identified HYD-1 and HYD-2 impacts associated with SDG&E's replacement of TL626 as discussed in Section D.9.3.3, they would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. The rerouted underground segment of Option 3a is approximately 11.4 miles long, and Option 3b is 6.3 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment). For Option 3a, approximately 25 locations along Boulder Creek Road exceed 12% slope. Additionally, Boulder Creek Road crosses approximately 10 hydrological features through which open trenching would not be feasible. These locations, along with areas consisting of tight turns, would require use of jack-and-bore or HDD construction techniques, resulting in approximately 75,200 square feet (approximately 1.7 acres) of temporary impacts during construction. The remaining approximately 10.5 miles of Boulder Creek Road would be open trenched, resulting in approximately 138,600 square feet (approximately 3.2 acres) of temporary impacts during

construction. This option would result in approximately 90,000 cubic yards of temporary excavation for the jack-and-bore pits (estimated at 20 feet in depth) and approximately 60 splice vaults (assuming 1 splice vault every 1,000 feet of the duct package). For Option 3b, approximately nine turns have an insufficient radius within the existing road bed to permit construction of underground duct packages. Approximately 12 locations along this segment of Boulder Creek Road exceed 12% slope. Additionally, this segment of Boulder Creek Road crosses approximately five hydrological features through which open trenching would not be feasible. These 26 locations would require jack-and-bore construction techniques to be used, resulting in approximately 41,600 square feet (approximately 1 acre) of temporary impacts during construction. The remaining approximately 5.3 miles of Boulder Creek Road would be open trenched, resulting in approximately 69,960 square feet (approximately 1.6 acres) of temporary impacts during construction. Option 3b would result in approximately 48,286 cubic yards of temporary excavation for the jack-and-bore pits (estimated at 20 feet in depth) and approximately 33 splice vaults (assuming 1 splice vault every 1,000 feet of the duct package).

Because undergrounding within Boulder Creek Road would create a substantially larger disturbance area and would cross more hydrological features compared to reconstruction of TL626 in place as proposed, a substantial increase in water quality impacts would occur during short-term construction activities due to additional runoff, sedimentation, or erosion. Due to the number of creek crossings, impacts from installation of the underground electric line would be considered significant and would be mitigated with implementation of MM HYD-7. Mitigation Measures MM HYD-7 and MM HYD-8 would mitigate for adverse impacts because they would ensure that where the project undergrounds the electric line at water features, impacts to the water features and groundwater resources would be minimized to the greatest extent possible through avoidance of the water feature and using measures to reduce potential releases of soils and contaminants as part of the effort to avoid the water feature. Under NEPA, impacts would be adverse but mitigated. Under CEQA, impacts would be significant and would be mitigated to a level that is considered less than significant (Class II). In addition, similar to SDG&E's proposed project, it is anticipated that HYD-1 and HYD-2 adverse and significant impacts would be reduced with implementation of APM HYD-01 through APM HYD-10, which would ensure that construction activities would not violate any federal, state, or regional water quality standards or waste discharge requirements, and with implementation of MM HYD-1, which stipulates SDG&E is responsible for preparing a SWPPP and the prevention and control of soil erosion and gullyng. Therefore, adverse and significant impacts would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

MM HYD-7 Implementation of Creek-Crossing Procedures. Where creek crossings can be completed during dry season, with no flows present in the creek, seasonally timed

restorative open trenching will be completed. This procedure will use minimum trench widths. Trench cut material will not be placed outside of the creek bed and outside of 100-year inundated areas. Trench fill will be compacted and replaced to existing conditions, including matching existing creek bed gradations, and restoring vegetation. Open trenching restoration will be completed prior to any wet season flows and will include anti-erosion action plans for any unplanned rainfall during construction. SDG&E shall obtain all required permits prior to completing open trenching through drainages. In any case, flows will be isolated from open trenching by best management practices mandated by the General Construction Permit. Areas of trenching would be restored and/or vegetated at completion of work.

Where creek crossings cannot be completed during the dry season, creek crossings shall use jack-and-bore or horizontal directional drilling procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. SDG&E shall develop a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan for this work in accordance with MM HYD-8. Additionally, SDG&E shall implement the following measures during jack-and-bore or horizontal directional drilling operations and shall be included in the HDD Contingency Plan:

1. Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.
2. Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention).
3. Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times.
4. Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary

sediment barriers shall be left in place until restoration is deemed successful.

SDG&E shall obtain the required permits prior to conducting creek crossing, jack-and-bore, and/or horizontal directional drilling work. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and California Department of Fish and Wildlife Streambed Alteration Agreement Section 1602. SDG&E shall implement all pre- and post-construction conditions identified in the permits issued.

MM HYD-8 Jack-and-Bore/Horizontal Directional Drill Contingency Plan. If jack-and-bore or horizontal directional drilling is to be used during construction, SDG&E shall prepare a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the Stormwater Pollution Prevention Plan. The Jack-and-Bore HDD Contingency Plan shall be submitted to the CPUC, Forest Service, Bureau of Indian Affairs, and ACOE 60 days prior to construction.

SDG&E shall obtain the required permits prior to conducting work associated with horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and California Department of Fish and Wildlife Streambed Alteration Agreement Section 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued for the jack-and-bore/horizontal directional drilling.

Impact HYD-3: The nature of impacts with respect to off-site water imports associated with Option 3 would be similar to those described in Section D.9.3.3 for SDG&E's proposed project for construction, operations, and maintenance. There could be an incremental increase in the amount of water needed during construction. However, impacts to groundwater supply would reflect the impact findings similar to those discussed in Section D.9.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM HYD-2a and MM HYD-2b would mitigate adverse impacts to groundwater supply under NEPA, and under CEQA, impacts would be reduced to a less-than-significant level (Class II) by providing the lead agencies with

documentation of purchased water sources and groundwater evaluations demonstrating that use of such sources would not result in significant impacts to groundwater in storage or neighboring wells.

Impact HYD-4: Options 3a and 3b would reroute a segment of TL626 and avoid identified HYD-4 impacts as discussed in Section D.9.3.3 determined to be significant and unavoidable (Class I, due to steepness of creek crossings) for the section of TL626 that would be relocated. As no new access roads or repair of access roads would be required along Boulder Creek Road, no HYD-4 impacts would occur.

Impact HYD-5: HYD-5 hydrology impacts associated with undergrounding a portion of TL626 in Boulder Creek Road would be slightly reduced from SDG&E's proposed project, as undergrounding in an existing roadway easement would reduce vegetation management required along this segment. Although impacts are slightly less than SDG&E's proposed project, impacts from this alternative and the project as a whole would remain adverse but mitigated under NEPA with implementation of MM HYD-5. Under CEQA, impacts would be less than significant with implementation of MM HYD-5 (Class II).

Option 4: Overhead Relocation along Boulder Creek Road

Environmental Effects

Impacts HYD-1 and HYD-2: Option 4 would consist of placing a segment of TL626 overhead in Boulder Creek Road and overland as shown in Figure B-4a. The rerouted segment of Option 4 is approximately 4.7 miles longer than that proposed by the project. Option 4 would minimize potential short-term impacts of construction on water quality because the realigned segment would follow existing roads and thus use of existing disturbed areas would be maximized. However, overall construction impacts related to water quality would reflect the impact findings similar to those discussed in Section D.9.3.3 for SDG&E's proposed project, due to the similar construction activities required for pole placement under this alternative. Therefore, with implementation of APM HYD-01 through APM HYD-10 and MM HYD-1, Impacts HYD-1 and HYD-2 would be mitigated by requiring that ground disturbance be controlled through implementation of the SWPPP and BMPs. Under NEPA, impacts would be adverse but mitigated, and under CEQA, impacts would be significant but less than significant with mitigation (Class II).

Impact HYD-3: Option 4 relocates a segment of TL626 overhead along Boulder Creek Road. All other project components remain the same. Although this segment is slightly longer, the impacts with respect to off-site water imports (Impact HYD-3) associated with Option 4 would be substantially the same as those described in Section D.9.3.3. Therefore, similar to SDG&E's

proposed project, with implementation of APM HYD-07 and MM HYD-1 through HYD-5, Impacts HYD-3 through HYD-5 would be adverse but mitigated under NEPA, and under CEQA would be significant but less than significant with mitigation (Class II).

Impact HYD-4: Option 4 would reroute a segment of TL626 overhead along Boulder Creek Road and avoid identified HYD-4 impacts as discussed in Section D.9.3.3, determined to be significant and unavoidable (Class I, due to steepness of creek crossings) for the section of TL626 that would be relocated under this option,

Impact HYD-5: Although this segment is slightly longer, the impacts with respect to vegetation management (Impact HYD-5) associated with Option 4 would be substantially the same as those described in Section D.9.3.3. Therefore, similar to SDG&E's proposed project, with implementation of APM HYD-07 and MM HYD-1 through HYD-5, Impacts HYD-3 through HYD-5 would be adverse but mitigated under NEPA, and under CEQA would be significant but less than significant with mitigation (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts HYD-1 through HYD-5: Option 5 would consist of relocating a portion of TL626 around the Inaja Picnic Area and as shown in Figure B-4c would consist of approximately 2,100 feet of relocated overhead alignment along with a 400-foot underground segment located within an existing parking lot. All other project components would remain the same. Construction and operational impacts related to hydrology and water quality would essentially be the same for the relocation of TL626 under Option 5 as described in Section D.9.3.3 for SDG&E's proposed project. As the Inaja Picnic area is located in the same area of SDG&E's proposed project, just south of SR-78 immediately east of the existing alignment for TL626, there would not be a substantial change to the baseline condition regarding the hydrological resources that would be impacted during construction. Therefore, as with SDG&E's proposed project, with implementation of APMS HYD-01 through HYD-11, as well as MMs HYD-1 through HYD-6, as applicable, impacts would be reduced. Impacts HYD-1, HYD-2, HYD-3, and HYD-5 are anticipated to be adverse under NEPA, and under CEQA less than significant with mitigation (Class II). As this alternative does not remove the steep road associated with SDG&E's proposed TL626, Impact HYD-4 would remain adverse and unavoidable under NEPA and significant and unavoidable under CEQA (Class I).

D.9.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.9.1 and D.9.2 describe the existing environmental setting associated with SDG&E's proposed project. The Forest Service proposed action for C157 would be in the same geographic region as SDG&E's proposed project; therefore, the hydrology and water quality setting would be the same as that identified in Sections D.9.1 and D.9.2.

Environmental Effects

Impacts HYD-1 and HYD-2: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). All other project components would remain the same. Construction and operational impacts related to water resources would essentially be the same as described for SDG&E's proposed project in Section D.9.3.3; therefore, as with SDG&E's proposed project, implementation of APM HYD-01 through APM HYD-10 and MM HYD-1 would mitigate these adverse impacts under NEPA by requiring that ground disturbance and non-stormwater discharges during construction be controlled through implementation of the SWPPP and BMPs. Under CEQA, significant Impacts HYD-1 and HYD-2 would be less than significant with mitigation (Class II).

Impact HYD-3: The impacts with respect to off-site water imports (Impact HYD-3), would be substantially the same as those described in Section D.9.3.3. Therefore, similar to SDG&E's proposed project, with implementation of APM HYD-07 and MM HYD-1 through MM HYD-5, Impacts HYD-3 through HYD-5 would be adverse but mitigated under NEPA, and under CEQA would be significant but less than significant with mitigation (Class II).

Impact HYD-4: As no SDG&E exclusive use access roads are along the C157 alignment or required for options 1 and 2, no impacts to HYD-4 would occur.

Impact HYD-5: Vegetation management impacts would reflect similar impact findings previously discussed in Section D.9.3.3 for SDG&E's proposed project. Options 1 and 2 would require similar routine maintenance and vegetation management practices as compared to SDG&E's proposed project. Therefore, with implementation of MM HYD-5, which provides procedural requirements for pesticide and herbicide applications, impacts would be adverse but

mitigated under NEPA and under CEQA would be significant but less than significant with mitigation (Class II).

D.9.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

Sections D.9.1 and D.9.2 describe the existing environmental setting associated with C440. This alternative would consist of undergrounding approximately 14.3 miles of C440 proposed for replacement within existing roadways in the Laguna Mountain Recreation Area. As this area is in the same geographic region as SDG&E's proposed project, the hydrology and water quality environmental setting would be the same as that identified in Sections D.9.1 and D.9.2.

Environmental Effects

Impacts HYD-1 and HYD-2: During installation of the underground portion of this alternative, trenching and grading activities would be greater than the project, exposing soils and removing vegetative cover that would compromise soil structure and increase the risk of erosion (Impact HYD-1). Due to similar construction equipment being used under this alternative as with SDG&E's proposed project, there would not be a substantial change regarding non-stormwater discharges during construction (Impact HYD-2). As with SDG&E's proposed project, implementation of APMs HYD-01 through HYD-10 and MM HYD-1 would mitigate these impacts under NEPA by requiring implementation of the SWPPP and BMPs.. Under CEQA, impacts would be less than significant with mitigation (Class II).

Impact HYD-3: The nature of impacts with respect to off-site water imports associated would be similar to those described in Section D.9.3.3 for SDG&E's proposed project for construction, operations, and maintenance. There could be an incremental increase in the amount of water needed during construction. However, impacts to groundwater supply would reflect the impact findings similar to those discussed in Section D.9.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM HYD-2a and MM HYD-2b would mitigate adverse impacts to groundwater supply under NEPA, and under CEQA, impacts would be reduced to a less-than-significant level (Class II) by providing the lead agencies with documentation of purchased water sources and groundwater evaluations demonstrating that use of such sources would not result in significant impacts to groundwater in storage or neighboring wells.

Impact HYD-4: As no new access roads or repair of access roads would be required along C440, impact HYD-4 would not occur.

Impact HYD-5: HYD-5 hydrology impacts associated with the undergrounding C440 would be reduced from SDG&E's proposed project, as undergrounding in existing roadway easements would reduce vegetation management required along these segments. C440 is within the watershed of a creek impaired with pesticides or herbicides under CWA Section 303(d); however, since 14.3 miles of C440 would be undergrounded, Impact HYD-5 would be reduced from SDG&E's proposed project. Although impacts are less than SDG&E's proposed project, MM HYD-5 and MM HYD-6 would be implemented to control pesticide and herbicide use to limit contamination of nearby water bodies. Therefore, adverse and significant impacts would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

D.9.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.9.1 and D.9.2 describe the existing environmental setting associated with TL682. The BIA proposed action for TL682 would relocate poles and underground approximately 1,500 feet on Tribal lands. As this area is in the same geographic region as SDG&E's proposed project, the environmental setting would be the same as that identified in Sections D.9.1 and D.9.2.

Environmental Effects

Impacts HYD-1 through HYD-5: During construction, soil disturbance would be greater under this alternative as open trenching would be more invasive than excavation for power line poles. This additional trenching activity and soil disturbance would increase the potential for exposing soils and removing vegetative cover, slightly increasing the risk of soil erosion. However, because the modifications proposed to TL682 under this alternative would occur primarily along the existing ROW for TL682, there would not be a change to the baseline condition. Therefore, as with SDG&E's proposed project, with implementation of APM HYD-01 through APM HYD-11, as well as MM HYD-1 through MM HYD-6, as applicable, impacts would be reduced. Impacts HYD-1 through HYD-5 are anticipated to be adverse but mitigated under NEPA, and under CEQA impacts would be significant but less than significant with mitigation (Class II).

D.9.6 Additional Alternatives

D.9.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the hydrology and water quality setting would remain the same as that identified in Sections D.9.1 and D.9.2.

Environmental Effects

Impacts HYD-1 through HYD-5: Up to 10.5 miles of SDG&E exclusive-use access roads were identified as being especially problematic from an erosion and sedimentation standpoint due to the potential for slopes to exceed a gradient of 25%. This alternative would include removal of approximately 2 miles of problematic road segments within the Pine Creek Watershed (i.e., TL629 and C442), due to the watershed's impairment for sediment, as well as certain segments along lines C79, TL625, and TL626, due to extended segments of very steep terrain (e.g., greater than 25% slope). As discussed in Section D.9.3.3, there may be no way to feasibly avoid substantial long-term effects on erosion and sedimentation (Impact HYD-4) without decommissioning (removing) or realigning these road segments as proposed under this alternative. This alternative would therefore reduce HYD-4 impacts that were determined to be adverse and unavoidable under NEPA, and under CEQA, to be significant and unavoidable (Class I), to mitigated under NEPA and less than significant with mitigation under CEQA (Class II), without creating additional impacts to HYD-1 through HYD-5.

D.9.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace it with system upgrades, either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with these upgrades is described as follows:

- a. Upgrade to the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation: The setting associated with this component is largely described in SDG&E's TL6931 Fire Hardening Project Proponent's Environmental Assessment (PEA) (SDG&E 2012). As described in SDG&E's PEA, the existing ROW supports a 69 kV line. The TL6931 alignment is located within RWQCB Regions 7 and 9 in the Anza-Borrego HU and the Tijuana HU. Surface flows from TL6931 in the Anza-Borrego HU flows towards Walker Creek, which flows to Carrizo Creek, and ultimately to the Salton Sea, and in the Tijuana River HU they flow to Campo Creek, which flows to the Tijuana River, and ultimately to the Pacific Ocean. The downstream receiving waters—the Salton Sea and Tijuana River—are 303(d) listed water bodies. TL6931 does not overlie a groundwater basin and is not located within a 100-year flood zone.
- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest

Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. As described in the Sunrise Powerlink EIR/EIS, the proposed 3-mile TL625 loop-in is located in the Sweetwater HU of the San Diego River Basin. The loop-in would be located near Taylor Creek. In addition, many unnamed, intermittent creeks and drainages are present throughout the vicinity, and the loop-in is in close proximity to other surface waters, such as riparian areas and erosional features. Further, the loop-in would be located in the vicinity of two water bodies that are listed as impacted pursuant to Section 303(d) of the Clean Water Act, including the Sweetwater River (approximately 1 mile from the closet portion of the loop-in) and Loveland Reservoir (approximately 2 miles from the closest portion of the loop-in). The loop-in would not be located within a delineated groundwater basin.

- c. Convert a 6.5-mile portion of TL626 between Santa Ysabel and Boulder Creek Substations from 69 kV to 12 kV, along with a 6.8-mile section that is co-located with C79 within the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.9.1 and D.9.2 for this component.

Environmental Effects

Under this alternative, a 6-mile portion of TL6931 would be reconstructed, or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of TL626 would be converted from 69 kV to 12 kV.

Reconstruction of TL6931

Impacts HYD-1 and HYD-2: Reconstruction of TL6931 would consist of construction as well as operations and maintenance activities similar to that described for the project. Due to the nature of the existing TL6931 alignment, there would not be a substantial change to the baseline condition with the exception of surface hydrology within the Anza-Borrego HU; therefore, Impacts HYD-1 and HYD-2 would have similar impact findings to those described for SDG&E's proposed project in Section D.9.3.3. As with SDG&E's proposed project, with implementation of APM HYD-01 through APM HYD-10, which would ensure that construction activities would not violate any federal, state, or regional water quality standards or waste discharge requirements, and with implementation of MM HYD-1, which stipulates SDG&E is responsible for preparing a SWPPP and the prevention and control of soil erosion and gully, water quality impacts would be reduced. Therefore, adverse and significant impacts would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact HYD-3: The nature of impacts with respect to off-site water imports associated with this alternative would be similar to those described in Section D.9.3.3 for SDG&E's proposed

project for construction, operations, and maintenance. There would not be a substantial change to the amount of water needed during construction for dust control purposes. Therefore, the overall magnitude of potential impacts on groundwater resources would be similar to SDG&E's proposed project. Implementation of MM HYD-2a and MM HYD-2b would mitigate adverse impacts to groundwater supply under NEPA, and under CEQA, significant impacts would be reduced to a less-than-significant level (Class II) by providing the lead agencies with documentation of purchased water sources and groundwater evaluations demonstrating that use of such sources would not result in significant impacts to groundwater in storage or neighboring wells.

Impact HYD-4: TL6931 will not require new access roads and is located in areas with predominately flat to gently sloping terrain. Therefore, this alternative would avoid identified HYD-4 impacts determined to be significant and unavoidable (Class I, due to steepness of creek crossings) for the section of TL626 that would be removed. Impact HYD-4 would be reduced from those described in Section D.9.3.3 for SDG&E's proposed project to not adverse under NEPA and less than significant under CEQA (Class III).

Impact HYD-5: Vegetation management impacts would reflect similar impact findings previously discussed in Section D.9.3.3 for SDG&E's proposed project. This alternative would require similar routine maintenance and vegetation management practices as compared to SDG&E's proposed project. Therefore, with implementation of MM HYD-5, which provides procedural requirements for pesticide and herbicide applications, impacts would be adverse but mitigated under NEPA and under CEQA would be significant but less than significant with mitigation (Class II). Further, TL6931 is within watersheds with water bodies impaired with pesticides or herbicides under CWA Section 303(d). Although these impaired water bodies (the Tijuana River and Salton Sea) are downstream, MM HYD-6 would be implemented to limit contamination of nearby water bodies. Therefore, impacts would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Development of the New 3-Mile Loop-in of TL625

Impacts HYD-1 and HYD-2: Development of the new TL625 loop-in would consist of construction as well as operations and maintenance activities similar to those described for the project in areas of rugged terrain. Due to the existing undeveloped nature of the proposed alignment, there would not be a substantial change to the baseline condition including the surface water features that could be exposed to erosion and sedimentation during construction activities. Hydrology impacts during construction would occur primarily due to grading of pad and helicopter landing sites and reflect similar findings as described in Impacts HYD-1 and HYD-2 discussed in Section D.9.3.3 for SDG&E's proposed project. Therefore, implementation of APM

HYD-01 through APM HYD-10 and MM HYD-1, under NEPA, would mitigate Impacts HYD-1 and HYD-2 associated with the loop-in. Under CEQA, impacts would be less than significant with mitigation (Class II).

Impact HYD-3: There would not be a substantial change regarding the amount of water needed during construction for dust control purposes under this alternative. Therefore, the overall magnitude of potential impacts on groundwater resources would be similar to SDG&E's proposed project. Implementation of MM HYD-2a and MM HYD-2b would mitigate adverse impacts to groundwater supply under NEPA and under CEQA, impacts would be reduced to a less-than-significant level (Class II).

Impact HYD-4: Due to the rugged terrain, helicopters would be used to construct as well as operate and maintain the proposed TL625 loop-in. Because no new access would be required, no impacts resulting from accelerated erosion and rills due to steep access roads (Impact HYD-4) would occur and therefore this alternative would avoid identified HYD-4 impacts determined to be significant and unavoidable (Class I, due to steepness of creek crossings) for the section of TL626 that would be removed.

Impact HYD-5: Vegetation management impacts would reflect similar impact findings previously discussed in Section D.9.3.3 for SDG&E's proposed project. This alternative would require similar routine maintenance and vegetation management practices as compared to SDG&E's proposed project. Therefore, with implementation of MM HYD-5 and MM HYD-6, which provides procedural requirements for pesticide and herbicide applications, impacts would be adverse but mitigated under NEPA and under CEQA would be significant but less than significant with mitigation (Class II).

Convert Segments of TL626 from 69 kV to 12 kV

Impacts HYD-1 through HYD-5: Conversion of segments of TL626 to 12 kV would consist of construction as well as operations and maintenance activities similar to those described for the project; therefore, Impacts HYD-1 through HYD-5 would reflect similar impact findings previously discussed in Section D.9.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of APM HYD-01 through APM HYD-11, as well as MM HYD-1 through MM HYD-6, as applicable, adverse and significant Impacts HYD-1 through HYD-5 would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

D.9.7 No Action Alternative

Environmental Effects

Impacts HYD-1 through HYD-5: Under the No Action Alternative, the MSUP would not be issued, and none of the facilities associated with SDG&E's proposed project would be constructed and the existing electric lines and access roads within the CNF would be removed. These areas would be restored to conditions acceptable to the Forest Service and would be managed consistent with the CNF LMP. Under the No Action Alternative, SDG&E would need to redesign the existing electric system to avoid National Forest System lands in order to meet the electric demand in their service territory, and in conformance with California Independent System Operator (CAISO) requirements.

The greatest adverse effect of SDG&E's proposed action, as described in Section D.9.3.3, is associated with the long-term operation and maintenance of exclusive use access roads that are experiencing chronic erosion due to their alignment and steepness (Class I impact related to Impact HYD-4). The No Action Alternative would remove this chronic source of erosion. Because the MSUP would not be reissued and roads that have been experiencing erosion would be restored to conditions acceptable to the Forest Service, the No Action Alternative would reduce unavoidable adverse (Class I) impacts associated with Impact HYD-4. However, because road/facility decommissioning within Forest Service lands, and construction of alternative facilities elsewhere to meet the electric demand would involve similar construction-related impacts as described under Impacts HYD-1 through HYD-3 (Section D.9.3.3), the class/severity of adverse impacts would not change substantially under the No Action Alternative. The operation and maintenance impacts described under Impact HYD-5 would be equally applicable to areas outside Forest Service lands and thus the class/severity of Impact HYD-5 would likewise not change substantially under the No Action Alternative.

D.9.8 No Project Alternative

Environmental Effects

Impacts HYD-1 through HYD-5: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain; therefore, none of the construction impacts described in Section D.9.3 would occur. Operation and maintenance of SDG&E electrical facilities would continue and include routine and periodic access road maintenance, equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. The existing erosion and gulying conditions in steep-slope areas along exclusive use access roads and within the SDG&E ROW would continue to be repaired as needed (seasonally) by SDG&E, typically by importing soil and filling in rutted areas and

potholes. This would represent an ongoing degradation issue as excessive levels of sediment would continue to be carried by stormwater flows into waterways and locally increase turbidity levels in creeks (when flowing). Operation and maintenance activities would not increase in duration, intensity, or frequency over existing conditions; therefore, the severity of impacts under existing conditions to hydrology and water quality would not change.

D.9.9 Mitigation Monitoring, Compliance, and Reporting

Table D.9-11 presents the mitigation monitoring, compliance, and reporting program for hydrology and water quality for the power line replacement projects and alternatives.

Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality

Mitigation Measure	<p>MM HYD-1 Erosion Control Plan / Stormwater Pollution Prevention Plan. For project components on federal land, SDG&E shall develop and implement an Erosion Control Plan (ECP) for construction, operations, and maintenance activities in order to prevent and control soil erosion and gullyng on federal land. The ECP shall include Forest Service best management practices specific to re-vegetation requirements (scarifying the soil, and fertilizing, seeding and/or mulching, as required) to achieve proper post-construction site stabilization); integrate requirements from the Construction General Permit, which likewise requires permittees to demonstrate implementation of post-construction cover requirements for final stabilization (i.e., re-vegetation); and integrate best management practices from the project's Stormwater Pollution Prevention Plan (see below). Additionally, the ECP shall compliment restoration goals and objectives identified in the Habitat Restoration Plan, as required under MM BIO-4. The ECP shall be provided to the California Public Utilities Commission (CPUC) for review prior to the Notice to Proceed issuance. The ECP shall be submitted to the Forest Service for review and approval prior to Notice to Proceed issuance.</p> <p>SDG&E shall develop a Storm Water Pollution Prevention Plan (SWPPP) for the project to reduce soil erosion during construction. The SWPPP and verification of submittal to the RWQCB shall be submitted to the CPUC and Forest Service prior to Notice to Proceed issuance. SDG&E shall provide CPUC and Forest Service with subsequent amendments to the SWPPP within 48 hours of the SWPPP amendment being submitted to the RWQCB; amendments shall be provided to the Forest Service to append to the ECP. In weekly construction compliance reports, SDG&E shall note when Storm Water Construction Site Inspection Report Forms have been posted to the Storm Water Multiple Application and Report Tracking System (SMARTS) following storm events.</p>
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(e) and Consultation</i>	<ul style="list-style-type: none"> a. Prepare Draft Erosion Control Plan / Stormwater Pollution Prevention Plan and submit to agencies b. Submit Final approved Erosion Control Plan / Stormwater Pollution Prevention Plan (SWPPP) c. CPUC/Forest Service monitor: Line item in compliance monitoring reports d. Implement post-construction maintenance activities and note in compliance monitoring reports

Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality

<i>Timing</i>	<ul style="list-style-type: none"> a. Prior to notice to proceed b. Prior to and during construction c. During construction d. Post construction
<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM HYD-2a Documentation of purchased water source(s). For water that is to be purchased from one or more public or private water/utility district(s), private landowners, or from tribes, SDG&E shall provide to the CPUC written documentation from such district(s) and/or landowners indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The documentation shall also indicate the type of water (potable or reclaimed) and the specific source of the water (groundwater well or surface diversions). The sources and amounts of water to be obtained by SDG&E shall be documented in a Water Supply Plan to be submitted to the CPUC as a condition of receiving a permit to construct.</p>
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(e) and Consultation</i>	<ul style="list-style-type: none"> a. Submit Water Supply Plan including copies of "will serve" letters providing verification that water quantities are available to meet project needs.
<i>Timing</i>	<ul style="list-style-type: none"> a. Prior to notice to proceed
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project and all Alternatives</u> : CPUC and Forest Service
Mitigation Measure	<p>MM HYD-2b Groundwater Evaluations of Off-Site Water Import Sources. For identified water sources that derive their water supply from groundwater, SDG&E shall commission a groundwater study by a registered/certified hydrogeologist, as reviewed and approved by CPUC, to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources and to verify that the proposed source is capable of supplying the amount of water needed. The groundwater study shall evaluate whether the volume and duration of the proposed groundwater use would exceed County of San Diego thresholds for impacts with respect to groundwater supply and well interference. If the evaluation indicates the potential for significant impacts, the registered/certified hydrogeologist shall recommend feasible mitigation measures (e.g., a groundwater monitoring program) to avoid exceeding applicable thresholds. The groundwater evaluation shall be provided along with the documentation of purchased water sources, and the CPUC shall not authorize construction of the project unless such documentation have been provided by SDG&E and approved by CPUC. If the evaluation finds that impacts cannot be avoided given the volume and duration of the proposed groundwater use, the CPUC will not authorize use of the water source and shall require SDG&E to seek other viable sources of water.</p> <p>Total confirmed water supplies from the combination of above documented sources shall equal the total gallons of water needed through construction of the project.</p>

Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality

	SDG&E shall submit monthly water logs documenting compliance with the water supply plan and groundwater thresholds.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Submittal of groundwater study (County of San Diego groundwater thresholds must not be exceeded)</p> <p>b. Copy of water study with verified groundwater quantities and will serve letters providing verification that water adds up to equal estimated project construction needs</p> <p>c. Provide monthly water logs documenting compliance with the water supply plan and groundwater thresholds</p>
<i>Timing</i>	<p>a. At least 60 days prior to notice to proceed</p> <p>b. At least 30 days prior to noticed to proceed</p> <p>c. During construction</p>
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project and all Alternatives</u> : CPUC and Forest Service
Mitigation Measure	<p>MM HYD-3 Implement Access Road Decommissioning Best Practices. SDG&E shall be responsible for the prevention and control of soil erosion and gulying in areas proposed for access road removal and shall implement the following activities::</p> <ul style="list-style-type: none"> • Remove any flagging, signs, or other markings within or around sensitive resource areas after road removal, except where such signs are necessary for long-term access control and interpretation purposes. • Remove temporary fill and structures to the extent practical. • Provide appropriate access control for temporary work areas, such as fencing posts, and/or signage, and ensure gates are locked in accordance with MM-REC-1 to minimize unauthorized traffic and/or access road circumvention during construction • Ensure that the road surface is in stable condition when the road is closed. Seed and fertilize disturbed surfaces as necessary. • To facilitate regeneration, back blade or otherwise scarify road beds where appropriate. Use native grass or forb mixes if available. • All earthwork shall be confined to the road corridor and no soil shall be sidecast onto adjacent areas; if necessary, excess soil material shall be incorporated into restoration activities or hauled off site to an approved disposal facility.
<i>Location</i>	Road removal locations for SDG&E's proposed projects and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Implement access road decommissioning best practices (MSUP permit condition for Forest Service)</p> <p>b. Monitor success of passive restoration, prevention of unauthorized use/access</p> <p>c. CPUC/Forest Service Monitor: Line item in compliance monitoring report</p>
<i>Timing</i>	<p>a. and b. During construction and operation</p> <p>c. During construction</p>

**Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality**

<i>Responsible Agency</i>	<p><i>SDG&E's Proposed Project:</i> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><i>Forest Service Proposed Actions:</i> CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><i>BIA Proposed Action:</i> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><i>Partial Removal of Overland Access Roads:</i> Forest Service</p> <p><i>Removal of TL626 from Service:</i> CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM HYD-4 Access Road Condition Evaluation and Repair Design Report. Planned grading and repair activities along SDG&E exclusive-use access roads that a) exceed grades of 15 percent (over a minimum distance of 100 feet), b) are within RCAs, or c) are anywhere within a sediment-sensitive watershed (as defined by the SWRCB) shall be evaluated by a qualified professional (e.g., PG, PE, or CEG reviewed and approved by the CPUC and the Forest Service and identify areas experiencing chronic erosion and drainage issues. The qualified professional shall design an engineered solution(s) to be implemented within the existing access roadway disturbance area in accordance with Forest Service standards, as described in Forest Service Handbook 2509.22 (Section 12.2), for each area determined to experience chronic erosion and/or drainage issues. The designed solution(s) shall be included into the approved project to ensure the avoidance or minimization of substantial damage or soil loss along the identified road segments. .</p> <p>Examples of such solutions could include, but are not limited to the following:</p> <ul style="list-style-type: none"> • Crowning road sections with gentle slopes to prevent standing water on the road • Outsloping roads at 3%-5% wherever possible • Where required for proper maneuvering and safety, insloping roads at 3-5% into properly designed ditches • Installing rolling dips, ditch relief culverts, and/or water bars at intervals appropriate for the road-grade and the soil erosivity • Minimizing the number of water crossings, and maintaining crossings as close to a 90-degree angle as possible to the streambed. • Constructing perennial and seasonal/ephemeral stream crossings so as not to change the cross-sectional area of the stream channel or impede fish migration. • Constructing perennial and seasonal/ephemeral stream crossings with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap and/or gabions) <p>The Access Road Condition Evaluation and Repair Design Report shall identify locations, if any, where no feasible and/or effective solutions can be implemented to adequately handle runoff or comply with Forest Service soil and water quality management standards as contained in Forest Service Handbook 2509.22 (Section 12.2). In these locations, the qualified professional shall recommend options for access road removal (i.e., requiring access by helicopter) or realignment (e.g., to achieve a lower slope) that would still achieve project objectives. Construction of the power line replacement projects shall not proceed until the report has been reviewed and approved by CPUC and Forest Service.</p>

Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality

<i>Location</i>	SDG&E exclusive use access roads for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<ul style="list-style-type: none"> a. Prepare Access Road Condition Evaluation and Repair Design Report b. Final review and approval of report c. Access roads shall be designed to handle the peak flow in a 10-year return period storm without incurring substantial damage or soil loss (e.g., fill failure, gully, extensive rilling). d. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	<ul style="list-style-type: none"> a. and b. Prior to start of construction for each individual replacement project. c. Prior to final design d. Prior to notice to proceed and during construction
<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923))</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM HYD-5 Procedural Requirements for Pesticide and Herbicide Applications. Pesticide and herbicide application shall occur under the direction of a professional pesticide applicator with either a Qualified Applicator License (QAL) or an Agricultural Pest Control Adviser License in the State of California (see MM-BIO-32 for additional biological training requirements for applicators with a QAL). Label instructions and all applicable laws and regulations shall be strictly followed in the application of pesticides and herbicides and disposal of excess materials and containers. Only those materials registered by the EPA for the specific purpose planned shall be authorized for use. Before applying any pesticides or herbicides on National Forest System land, SDG&E shall receive approval from the Forest Service for all pesticides and herbicides proposed for use on National Forest System land prior to their application on these lands.. For portions of the project crossing BLM lands, SDGE shall obtain a BLM Pesticide Use Permit as well. Additionally, prior to any pesticide or herbicide use, SDG&E shall submit an anticipated schedule to the Forest Service for planned use within the CNF on an annual basis, or more frequently as needed, and will work with the Forest Service to determine the appropriate pesticide and herbicide per location.</p>
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<ul style="list-style-type: none"> a. Pesticide applicator qualifications b. Implement in accordance with EPA requirements c. Provide pesticide application schedule
<i>Timing</i>	<ul style="list-style-type: none"> a. At least 2 weeks prior to first pesticide application b. During construction, operation, and maintenance c. Submit on annual basis (or more frequently as needed)
<i>Responsible Agency</i>	Forest Service
Mitigation Measure	<p>MM HYD-6 Pesticide Use Prohibition along Cottonwood Creek (C440, C449, and TL629C). SDG&E shall not use pesticides in routine O&M activities on poles located within the RCAs associated with Cottonwood Creek. Instead SDG&E must achieve pest management goals using non-chemical methods.</p>
<i>Location</i>	RCAs associated with Cottonwood Creek (C440, C449, and TL 629C)

Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality

<i>Compliance Documentation^(a) and Consultation</i>	a. Provide documentation of non-chemical methods to be used in RCAs
<i>Timing</i>	a. During 5-year construction and routine O&M
<i>Responsible Agency</i>	<p><i>SDG&E's Proposed Project:</i> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><i>Forest Service Proposed Actions:</i> CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)</p> <p><i>BIA Proposed Action:</i> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><i>Partial Removal of Overland Access Roads:</i> Forest Service</p> <p><i>Removal of TL626 from Service:</i> CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM HYD-7 Implementation of Creek-Crossing Procedures. Where creek crossings can be completed during dry season, with no flows present in the creek, seasonally timed restorative open trenching will be completed. This procedure will use minimum trench widths. Trench cut material will not be placed outside of the creek bed and outside of 100-year inundated areas. Trench fill will be compacted and replaced to existing conditions, including matching existing creek bed gradations, and restoring vegetation. Open trenching restoration will be completed prior to any wet season flows, and will include anti-erosion action plans for any unplanned rainfall during construction. SDG&E shall obtain all required permits prior to completing open trenching through drainages. In any case, flows will be isolated from open trenching by best management practices mandated by the General Construction Permit. Areas of trenching would be restored and/or vegetated at completion of work.</p> <p>Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. SDG&E shall develop a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan for this work in accordance with MM-HYD-8. Additionally, SDG&E shall implement the following measures during horizontal boring (jack-and-bore) operations and shall be included in the HDD Contingency Plan:</p> <ol style="list-style-type: none"> (1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. (2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention). (3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times. (4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful. <p>SDG&E shall obtain the required permits prior to conducting creek crossing work.</p>

**Table D.9-11
Mitigation Monitoring, Compliance, and Reporting – Hydrology and Water Quality**

	Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. SDG&E shall implement all pre- and post-construction conditions identified in the permits issued.
<i>Location</i>	TL626 alternative alignment (Option 3 underground in Boulder Creek Road)
<i>Compliance Documentation^(a) and Consultation</i>	<ul style="list-style-type: none"> a. Implement Creek Crossing Procedures during the dry season b. Prepare a Jack-and-Bore HDD Contingency Plan with associated SWPPP in accordance with the requirements and timing in MM-HYD-8 c. Conduct directional drilling rather than trenching, where/when applicable d. CPUC/Forest Service Monitor: Line item for standard trenching (Creek Crossing Procedures) in compliance monitoring report
<i>Timing</i>	<ul style="list-style-type: none"> a. During construction b. At least 60 days prior to construction c. Prior to and during construction d. During construction
Mitigation Measure	<p>MM HYD-8 Jack-and-Bore/Horizontal Directional Drill Contingency Plan. If jack-and-bore or horizontal directional drilling is to be used during construction, SDG&E shall prepare a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the Stormwater Pollution Prevention Plan. The Jack-and-Bore HDD Contingency Plan shall be submitted to the CPUC, Forest Service, Bureau of Indian Affairs, and ACOE 60 days prior to construction.</p> <p>SDG&E shall obtain the required permits prior to conducting work associated with jack-and-bore/horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued for the jack-and-bore/horizontal directional drilling.</p>
<i>Location</i>	TL626 alternative alignment (Option 3 underground in Boulder Creek Road)
<i>Compliance Documentation^(a) and Consultation</i>	<ul style="list-style-type: none"> a. Prepare Jack-and-Bore HDD Contingency Plan with associated SWPPP and obtain required permits b. Approval and implementation of Jack-and-Bore HDD Contingency Plan, if necessary d. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	<ul style="list-style-type: none"> a. Prior to construction b. Prior to and during construction, if applicable c. During construction
<i>Responsible Agency</i>	<i>Forest Service Proposed Action – Option 3:</i> CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), ACOE

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

D.9.10 Residual Unavoidable Effects

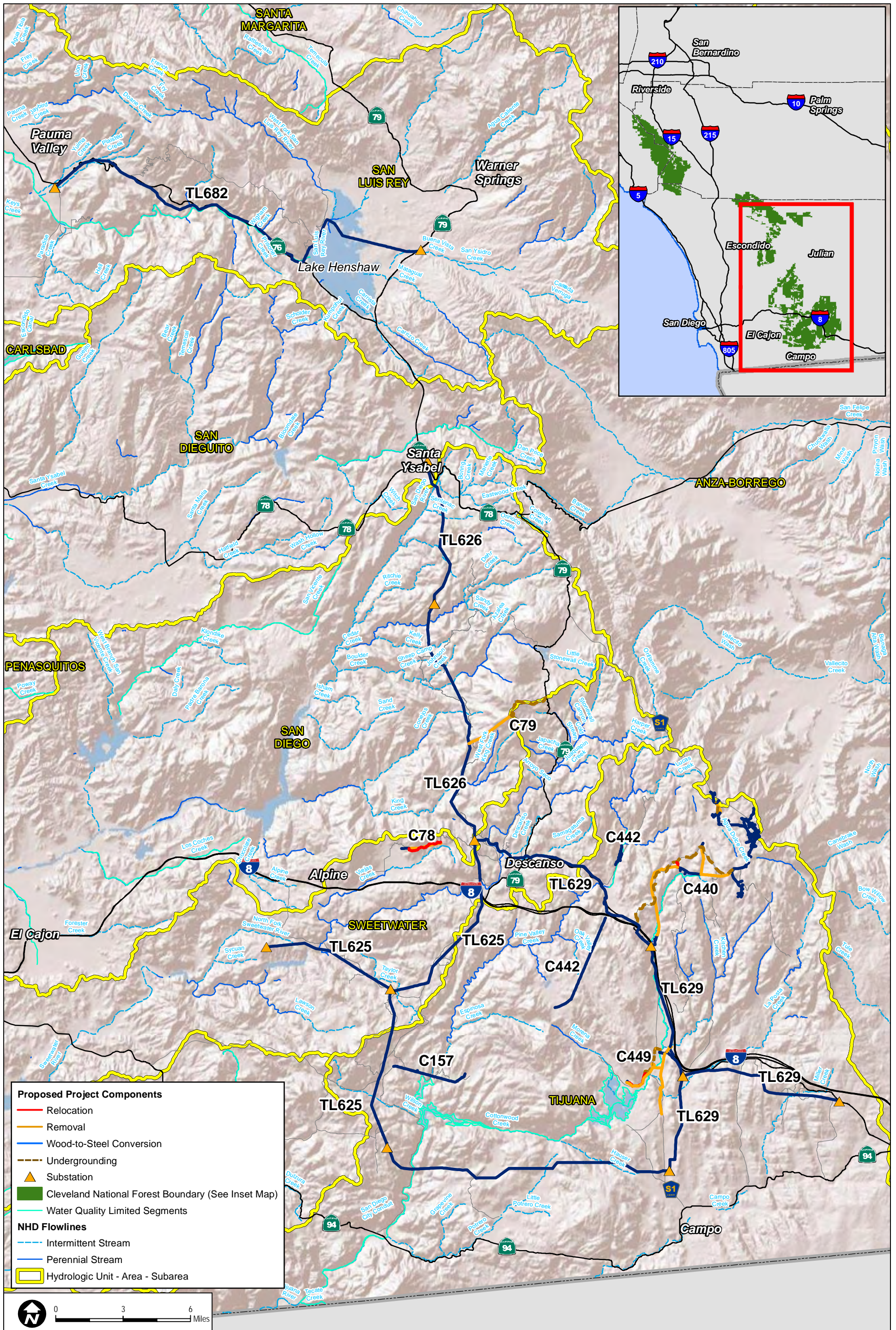
Up to 10.5 miles of SDG&E exclusive-use access roads were identified as being especially problematic from an erosion and sedimentation standpoint due to the potential for slopes to exceed a gradient of 25%, including approximately 2 miles of problematic road segments within the Pine Creek Watershed (i.e., TL629 and C442), due to the watershed's impairment for sediment, as well as certain segments along C79, TL625, and TL626, due to extended segments of very steep terrain (e.g., greater than 25% slope). As discussed in Section D.9.3.3, there may be no way to feasibly avoid substantial long-term effects on erosion and sedimentation (Impact HYD-4) without decommissioning (removing) or realigning these road segments, as proposed under the Partial Removal of Overland Access Roads Alternative. While implementation of MM HYD-4 would ensure that levels of erosion and sedimentation are reduced compared to existing conditions, implementation of MM HYD-4 would not reduce identified unavoidable Class I HYD-4 impacts.

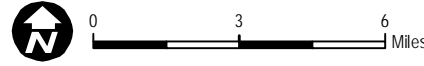
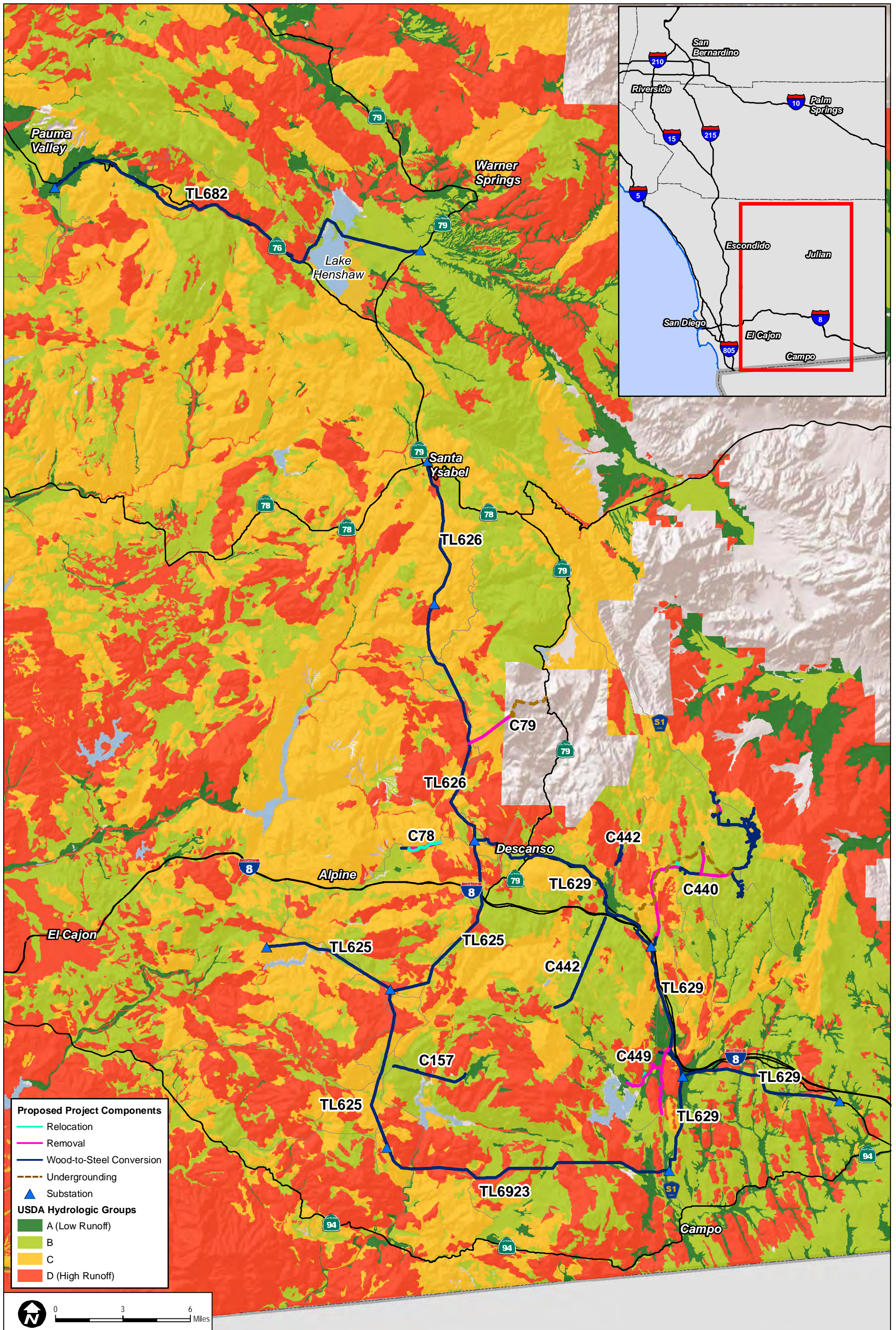
D.9.11 References

- County of San Diego. 2007. *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Groundwater Resources*. Land Use and Environment Group, Department of Land Use and Planning, Department of Public Works. March 19, 2007. <http://www.sdcounty.ca.gov/pds/docs/GRWTR-Report-Format.pdf>.
- DWR (California Department of Water Resources). 2003. "Campo Valley Groundwater Basin, Groundwater Basin Number: 9-28." *California's Groundwater*. Bulletin 118. Last updated October 1, 2003.
- DWR. 2004a. "Cottonwood Valley Groundwater Basin, Groundwater Basin Number: 9-27." *California's Groundwater*. Bulletin 118. Last updated February 27, 2004.
- DWR. 2004b. "Warner Valley Groundwater Basin, Groundwater Basin Number: 9-08." *California's Groundwater*. Bulletin 118. Last updated February 27, 2004.
- DWR. 2004c. "San Luis Rey Valley Groundwater Basin, Groundwater Basin Number: 9-7." *California's Groundwater*. Bulletin 118. Last updated February 27, 2004.
- Project Clean Water. 2013. "Watersheds." Project Clean Water – A Water Quality Resource for the San Diego Region. Accessed March 31, 2013. http://www.projectcleanwater.org/index.php?option=com_content&view=article&id=2&Itemid=19.

- San Diego RWQCB (San Diego Regional Water Quality Control Board). 2011. *Water Quality Control Plan for the San Diego Basin*. Dated September 1994, with amendments effective on or before April 4, 2011.
- SanGIS. 2012. “Flood_Plain.shp” and “Dam_Inundation.shp.” FEMA National Flood Hazard Layer (NFHL) and OEM Dam Inundation Layer from SanGIS/SANDAG Data Warehouse. Accessed December 13, 2012. http://www.sangis.org/Download_GIS_Data.htm.
- SDG&E (San Diego Gas & Electric). 2012. *Proponent’s Environmental Assessment for the TL6931 Fire Hardening/Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.
- SDG&E. 2013. *Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California, Plan of Development*. Prepared by Insignia Environmental. Encinitas, California: Insignia Environmental. March 2013.
- SSURGO (Soil Survey Geographic Database). 2007. Soil Hydrologic Groups within Work Areas.
- SWRCB (State Water Resources Control Board). 2010. *2010 Integrated Report on Water Quality with Web-Based Interactive Map (Clean Water Act Section 303(d) List/305(b))*. Staff report. April 19, 2010. Accessed March 28, 2013. http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.
- SWRCB. n.d. “High Receiving Water Risk Watershed GIS Methodology.” SWRCB guidance on determining receiving water risk. Accessed January 3, 2013. http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/guidance/receivingwaterrisk.pdf.
- USGS (U.S. Geological Survey). 2011. *Status and Understanding of Groundwater Quality in the San Diego Drainages Hydrogeologic Province, 2004—California GAMA Priority Basin Project*. Scientific Investigations Report No. 2011–5154. Reston, Virginia: USGS. <http://pubs.usgs.gov/sir/2011/5154/pdf/sir20115154.pdf>.

INTENTIONALLY LEFT BLANK





D.10 Land Use and Planning

This section addresses potential impacts on existing, planned, and proposed land uses resulting from the construction and operation of the proposed power line replacement projects along with the operations and maintenance activities proposed for authorization under the MSUP. Section D.10.1 provides a description of the environmental setting, while Section D.10.2 discusses applicable land use plans, policies, and ordinances. An analysis of the environmental impacts resulting from implementation of SDG&E's proposed project is provided in Section D.10.3, and impacts resulting from the Forest Service proposed action are discussed in Section D.10.4. Section D.10.5 discusses the BIA proposed action and additional alternatives are discussed in Section D.10.6. Section D.10.7 analyzes the No Action Alternative and the No Project Alternative is analyzed in Section D.10.8. Section D.10.9 provides mitigation monitoring, compliance, and reporting information. Residual Effects are analyzed in Section D.10.10. Lastly, Section D.10.11 lists the references cited in this section.

Aside from impacts to the existing and planned land uses analyzed in this section, a number of additional land use related topics are addressed in other sections of this EIR/EIS. Aesthetic/visual resource issues are described in Section D.2; noise is addressed in Section D.11; recreation issues are addressed in Section D.13; and transportation and traffic issues are addressed in Section D.14. Additionally, conflicts with any applicable habitat conservation plan or natural community conservation plan are addressed in Section D.4, Biological Resources, of this EIR/EIS.

D.10.1 Environmental Setting/Affected Environment

This section provides a description of existing land uses and sensitive receptors near the various components of SDG&E's proposed project.

Methodology and Assumptions

Baseline existing land use conditions in SDG&E's proposed project area were obtained from site visits, a review of aerial photographs, SDG&E's Revised Plan of Development for the Master Special Use Permit Cleveland National Forest (SDG&E 2013), the Recirculated Draft EIR/Supplemental EIS for the Sunrise Powerlink Project (CPUC and BLM 2008a), and the Final EIR/EIS and Proposed Land Use Amendment for the Sunrise Powerlink Project (CPUC and BLM 2008b). The Final EIS/EIR for the ECO Substation, Tule Wind, and ESJ Gen-Tie Line Project (CPUC and BLM 2010) was also reviewed for existing baseline data. In addition to identifying baseline conditions, these documents were used to identify the location of sensitive land uses occurring in the area. Sensitive land uses are land uses that are particularly susceptible to construction and operational disturbances (such as noise and traffic) and include residences, educational institutions, and select public facilities including medical and religious facilities.

Recreational facilities are also considered sensitive land uses and are addressed in Section D.13, Recreation, of this EIR/EIS.

Existing and proposed land use information was obtained from Part 2 (Cleveland National Forest Strategy) of the Southern California National Forests Land Management Plan (LMP) (Part 2 is herein referred to as the CNF LMP) (Forest Service 2005); the proposed Southern California National Forests LMP Amendment (for purpose of this analysis herein referred to as the CNF LMP Amendment) (Forest Service 2013); and the County of San Diego General Plan Land Use Element (County of San Diego 2011) that includes subregional and community plans applicable to lands traversed by existing SDG&E electric facilities (power lines, access roads, and other facilities) to be covered under the proposed MSUP. Other land use plans and ordinances reviewed included the South Coast Resource Management Plan (RMP) (BLM 1994), the South Coast Draft RMP and EIS (BLM 2011), the Cuyamaca Rancho State Park General Plan (California Department of Parks and Recreation 1986), and the County of San Diego Zoning Ordinance (County of San Diego 2014a). California State Parks is currently in the process of updating the existing Cuyamaca Rancho State Park General Plan, and an EIR will be prepared. However, at this time, proposed revisions to existing management zones and policies are not available for public review.

D.10.1.1 General Overview

As shown on Figure B-1, Regional Overview Map, the MSUP study area is located within the Trabuco, Palomar and Descanso ranger districts in the Cleveland National Forest (CNF) in southeastern Orange County, southwestern Riverside County, and San Diego County, with the majority of the study area including all of the proposed power line replacement projects located within and surrounding the Palomar and Descanso ranger districts in San Diego County. In general, the CNF is comprised of forested and mountainous to chaparral-covered semi-desert lands featuring undeveloped backcountry areas, Congressionally designated wilderness, and limited areas of concentrated recreation residential development. Lands are accessible and occasionally bisected by local roads, state highways, and interstates, and visitors are provided diverse recreational opportunities including hiking, camping, horseback riding, and off-highway vehicle (OHV) areas. In addition to existing transmission and distribution lines, numerous access roads traverse the CNF, and several communication sites are distributed across the area.

Trabuco Ranger District

The Trabuco Ranger District lies at the boundary of Orange, Riverside, and San Diego counties and is generally comprised of chaparral-covered lands supporting backcountry trail-based recreation including hiking, biking, and horseback riding, and developed campground and picnic sites. The eastern portion of the district includes the undeveloped east-facing slopes of the Santa

Ana Mountains surrounded by rapidly developing urban communities situated along the Interstate 15 (I-15) corridor. In addition to higher elevation mountainous areas, undeveloped canyon lands and designated wilderness (i.e., the San Mateo Canyon Wilderness) are located in the northern and western portions of the Trabuco Ranger District and offer additional trail-based recreation opportunities for surrounding urban and suburban communities.

Palomar Ranger District

Located between the Trabuco and Descanso ranger districts, the Palomar Ranger District encompasses the CNF from State Route 79 (SR-79) in Riverside County south to the perimeter of the Capitan Grande Indian Reservation in eastern San Diego County. In addition to tribal lands, the CNF is interspersed with county, state, and private lands. North of SR-76, the Palomar Ranger District is generally characterized by mountainous terrain supporting trail-based recreation and offering scenic viewing opportunities, family and group campgrounds, and picnicking areas. In addition to lightly developed areas near Palomar Mountain, the Agua Tibia Wilderness and the Cutca Valley Recommended Wilderness are located in the northern portion of the district. South of State Route 76, the national forest maintains a primarily mountainous character and is comprised of generally undeveloped backcountry lands that eventually transition to valley and foothill interface zones abutting existing rural communities. Further to the south (south of SR-78) the Palomar Ranger District encompasses lands featuring steep canyon and chaparral and occasional woodland covered terrain traversed by a network of unpaved access roads. Dispersed rural residential development is located on lands outside of the CNF but generally, the Palomar Ranger District area supports backcountry trail-based recreation.

Descanso Ranger District

National Forest lands within the Descanso Ranger District generally display a rugged, mountainous to semi-desert character; however, the heavily visited northwest portion of the Laguna Mountain area features a high concentration of private and public recreation uses and supports some of the largest permitted livestock grazing operations in the CNF (Forest Service 2005a). In addition, meadows, several communication sites, the abandoned Mount Laguna Air Force base, and the Mount Laguna Observatory are located in the area. Further to the south, the Descanso Ranger District is bisected by the I-8 travel corridor and is characterized by the most mixed land ownership pattern in the CNF (Forest Service 2005a). This portion of the district acts as a transition zone between the outskirts of metropolitan San Diego and the relatively undeveloped mountain, desert, and open space areas of eastern San Diego County (Forest Service 2005a) and supports several rural residential communities located along the I-8 corridor. Lastly, the southernmost portion of the district has an open space character with large expanses

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.10 LAND USE AND PLANNING

of undeveloped land including existing wilderness (i.e., Pine Creek Wilderness and Hauser Wilderness) and two recommended wilderness areas.

As shown on Figure B-2, U.S. Forest Service (Forest Service) lands and other federal, state, tribal, and local jurisdictional lands occur within the proposed power line replacement projects study area, including Bureau of Land Management (BLM), California Department of Parks and Recreation, and Native American lands.

Table D.10-1 lists the land use jurisdiction and occupied area (in miles) associated with each of the proposed power line replacement project components.

Table D.10-1
Agency Jurisdiction of Project Components

Proposed Project Component	Jurisdiction	Number of Miles under Jurisdiction*
<i>Power Line Replacement Project Components (69-kilovolt facilities)</i>		
TL682	CPUC	15.6
	CNF	1.32
	Tribal (La Jolla Indian Reservation)	3.06
	Tribal (Pauma and Yuima Indian Reservation)	0.18
TL626	CPUC	10.65
	CNF	7.99
TL625	CPUC	16.16
	CNF	6.26
	BLM	0.05
TL629	CPUC	29.75
	CNF	8.95
	Tribal (Campo Indian Reservation)	0.56
	BLM	0.71
TL6923	CPUC	7.01
	CNF	3.17
	BLM	3.22
<i>Distribution Circuit Replacement Project components (12-kilovolt facilities)</i>		
C79	CNF	1.85 (removal)
	California State Parks	0.38 (removal) 2.86 (underground)
C78	CNF	1.41 (removal) 1.81 (reconductor)
	Tribal (Viejas Indian Reservation)	0.06 (reconductor)
	CPUC	0.02 (removal) 0.21 (reconductor)
	C157	CNF
	CPUC	1.8 (reconductor)

Table D.10-1
Agency Jurisdiction of Project Components

Proposed Project Component	Jurisdiction	Number of Miles under Jurisdiction*
C442	CNF	3.67 (reconductor)
	CPUC	2.52 (reconductor)
C440	CNF	5.76 (removal) 4.26 (underground) 11.88 (reconductor))
	State	0.09 (reconductor)
	CPUC	1.38 (removal) 4.09 (underground) 5.08 (reconductor)
C449	CNF	4.93 (removal) 0.39 (underground) 1.72 (reconductor)
	CPUC	0.7 (removal) 0.23 (underground) 0.58 (reconductor)

Source: SDG&E 2013

Existing Land Uses

In addition to undeveloped backcountry areas, federal designated wilderness, and recreation residential development, existing land uses in the study area include scattered public facilities and utilities (e.g., electrical substations, transmission and distribution lines, communication infrastructure, etc.), trail-based and other recreation opportunities, unpaved access roads and paved roads, highways, and interstates, row crops and other agricultural uses, narrow and broad meadows and drainage areas, and several creeks and other waterways. The relatively diverse assemblage of existing land uses within the CNF reflects the mildly fluctuating character of the landscape, the influence of adjacent land areas including rural residential development on County and Tribal lands and state wilderness in the Cuyamaca Rancho State Park, and the provision of access and basic utilities to remote forest areas and surroundings.

Planned Land Uses

Planned land uses are those designated in long-range planning documents including LMPs, RMPs, and general plans and are intended to guide the future development and growth patterns of a given jurisdiction. As stated previously, in addition to Forest Service lands, BLM, California Department of Parks and Recreation, Native American, and County of San Diego jurisdictional lands occur in the study area; and therefore, the planned lands uses established by these jurisdictions in relevant long-range documents are discussed below.

Forest Service

The CNF LMP and the proposed LMP Amendment are the relevant long-range planning documents for the national forest. In the CNF, the Forest Service has established seven land use zones to identify appropriate management activities on forest lands. The seven land use zones as established in the existing LMP are listed and summarized in Table D.10-2, below. The existing distribution of land use zones within the CNF is depicted on Figure D.10-1. The proposed distribution of land use zones within the CNF pursuant to the CNF LMP Amendment are depicted on Figure D.10-2.

Table D.10-2
Cleveland National Forest LMP Land Use Zones

Land Use Zone	Description
Developed Area Interface	Includes areas adjacent to communities or concentrated developed areas with more scattered or isolated community infrastructure. The level of human use and infrastructure is typically higher than in other zones.
Back Country	Includes areas of the national forest that are generally undeveloped with few roads. Most of the national forest's remote recreation and administrative facilities are found in this zone and the level of human use and infrastructure is generally low to moderate.
Back Country Motorized Use Restricted	Includes areas of the national forest that are generally undeveloped with few roads. Few facilities are found in this zone (some may occur in remote locations), and the level of human use and infrastructure is low to moderate.
Back County Non-Motorized	Includes areas of the national forest that are undeveloped with few, if any roads. Developed facilities supporting dispersed recreation activities are minimal and generally limited to trails and signage. The level of human use and infrastructure is low.
Critical Biological	Includes the most important areas on the national forest to manage for the protection of species-at-risk. Facilities are minimal to discourage human use. The level of human use and infrastructure is low to moderate.
Existing Wilderness	Includes Congressionally designated wildernesses. Only uses consistent with all applicable wilderness legislation and with the primitive character are allowed in existing wilderness.
Recommended Wilderness	Includes land that the Forest Service is recommending to Congress for wilderness designation and will be managed in the same manner as existing wilderness so that the wilderness attributes of the area are retained until legislation is passed, or the area is released from consideration.

Source: Forest Service 2005a.

Regarding wilderness, four federal designated wildernesses are located within the CNF. These include the Agua Tibia Wilderness in the northern extent of the Palomar Ranger District, the

Hauser Wilderness and Pine Creek Wilderness in the southern extent of the Descanso Ranger District, and San Mateo Canyon Wilderness in the southern extent of the Trabuco Ranger District. Designated wilderness located near the proposed power line replacement projects are concentrated in the southern extent of the Descanso Ranger District and include the 6,834-acre Hauser Wilderness and the 13,368-acre Pine Creek Wilderness (Forest Service 2005a). Recommended Wilderness in the CNF includes the 8,619-acre Cutca Valley Inventoried Roadless Area (IRA) in the northern part of the Palomar Ranger District, the 430-acre Pine Creek area located in the Pine Creek Valley and adjacent to the Pine Creek Wilderness, and the 2,302-acre Hauser South Expansion Area near the Hauser Wilderness (Forest Service 2005a). IRAs are generally large, unfragmented tracts of Forest Service lands without existing roads that could potentially be suitable for roadless area conservation such as through wilderness designation or other protection measures (Forest Service 2005a). In addition to existing Recommended Wilderness, the majority of the Barker Valley, Caliente, Eagle Peak, No Name, and Sill Hill IRAs, along with the Upper San Diego River and Cedar Creek publically proposed undeveloped areas, would be designated Recommended Wilderness by the LMP Amendment (Forest Service 2013).

BLM

Both TL625 and TL629 briefly traverse BLM lands near the southernmost extent of the CNF in San Diego County and the South Coast RMP and the Draft RMP revision are the applicable planning documents for BLM lands in the MSUP study area. The South Coast RMP does not apply land use zones to all BLM lands included in the RMP area; rather, regulatory designations intended to protect specific resources are applied to lands sparingly. For example, contiguous BLM lands in the Hauser Mountain and McAlmond Canyon vicinity are managed as a wildlife habitat management area (HMA), and grazing allotments are established near the Potrero, Hauser Mountain, Cameron, and Clover Flat areas (BLM 1994). Portions of TL6923 traverse the Potrero and Hauser Mountain grazing allotments, and portions of TL629 between the Cameron Tap and Cameron substation may traverse the Cameron and Clover Flat grazing allotments. While the existing RMP establishes wildlife HMAs and grazing allotments for select lands in the MSUP study area, it does not discuss the range of uses consistent with those designations.

California Department of Parks and Recreation

The Cuyamaca Rancho State Park General Plan and the pending General Plan Update are the applicable planning documents for state park lands located in the MSUP study area. According to the General Plan, the majority of state parks lands (13,200 acres) are designated wilderness; 10,224 acres are designated scenic open space; and 2,560 acres are designated cultural preserves (California Department of Parks and Recreation 1986). Regarding the proposed power line

replacement projects, approximately 16 existing support poles and 1,800 feet of distribution line associated with C79 on the western slopes of Cuyamaca Peak are located within designated wilderness (i.e., the Cuyamaca Mountain State Wilderness). The remaining two poles and approximately 150 feet of C79 distribution line under California State Parks land use authority are located outside of designated state wilderness. Further, the proposed underground alignment of C79 within the state park and more specifically, within Lookout Road, would be located outside of designated wilderness on undesignated state park lands. West of Azalea Spring Fire Road and Fern Flat Fire Road (Azalea Spring Fire Road essentially becomes Fern Flat Fire Road south of Lookout Road), state wilderness boundaries are established approximately 120 to 175 feet on either side of Lookout Road.

In addition to the existing General Plan, the California State Parks is in the process of preparing an updated General Plan for Cuyamaca Rancho State Park; however, the draft update General Plan document was not available for review during preparation of this EIR/EIS. As such, the future allocation of land use zones in the state park in the vicinity of the underground alignment of C79 along Lookout Road is not known at this time.

Native American lands

As shown in Table D.10-1 above, portions of the project traverse Native American lands. More specifically, TL682 traverses lands of the La Jolla Band of Luiseno Indians and the Pauma-Yuima Band of Mission Indians; TL629 traverses the Campo Indian Reservation between the Cameron Tap and the Crestwood Substation; and the reconductoring of C78 partially occurs on the Viejas Indian Reservation. Similar to other land use jurisdictional authorities in the project area, Native American tribes are anticipated to have general or specific land use plans that delineate land use zones or areas on Tribal lands intended to guide the future development of lands. However, the land use plan of Native American tribes in the project area were not readily available for review during preparation of this EIR/EIS.

County of San Diego

While the CPUC and Forest Service have independent jurisdiction and approval authority for the project (the CPUC is the lead agency under California law and the Forest Service is the lead federal agency), state agencies such as the CPUC are required to consider local land use policies and regulations when making decisions. Therefore, County of San Diego General Plan land use and zoning designations applied to lands traversed by proposed power line replacement projects and located outside of CNF boundary are summarized in Tables D.10-3 and D.10-4 and identified (where applicable) in Section D.10.1.2.

**Table D.10-3
County of San Diego General Plan Land Use Designations**

Land Use Designation	Intended Land Use
Rural Lands (RL-20, 40, or 80)	Densities provided include one dwelling unit (DU) per 20, 40, or 80 acres. The rural land designation is intended to reflect and preserve the rural agricultural, environmentally constrained, and natural backcountry areas of the County.
Public/Semi-Public Facilities	Designation is applied to lands on which major facilities are built and maintained for use.
Semi-Rural 10 (SR-10)	Density provides for one DU per 10 gross acres (development may be further constrained due to the presence of slopes greater than 25%).
Open Space – Conservation (OS-C)	Designation is typically applied to large tracts of lands, undeveloped and usually dedicated to open space. Allowed uses included habitat preserves, passive recreation, and reservoirs.
Public Agency Lands	Designation is applied to state parks, national forests, or other public agency non-conservation lands not under the purview of the County.
Rural Commercial (C-4)	Designation provides for small-scale and civic development including small office or residences of up to 2 units per gross acres. Retail stores, eating and drinking establishments, libraries, and visitor-oriented services are also encouraged by this designation.
Village Residential (VR-2 or VR-2.9)	Densities provide for 2 units per gross acre or 2.9 units per gross acre. Single and very low-density multifamily development is encouraged by this designation.

Source: County of San Diego 2011

**Table D.10-4
County of San Diego Zoning Designations**

Zoning Designations	Intent and Permitted Uses
Single-Family Residential (RS)	Intended to create and enhance areas where family residential uses are the principal use and where certain essential services are conditionally permitted. Permitted uses include family residential, essential services (fire protection), horticulture (cultivation), tree crops, and row and field crops. Conditionally permitted uses include minor impact utilities, small schools, postal services, and community recreation.
Rural Residential (RR)	Intended to create and enhance residential areas where agricultural use compatible with permanent residential uses is desired. Permitted uses include family residential, essential services (fire protection), horticulture (all types), tree crops, and row and field crops.
Open Space (S80)	Intended to provide for appropriate control for land generally unsuitable for intensive development. Permitted uses include family residential, essential services (fire protection), horticulture (all types), tree crops, row and field crops, and packing and processing (limited).
General Rural (S92)	Intended to provide controls for lands with rugged terrain, ground water dependency, fire or erosion susceptibility, or other development constraints. Same basic permitted uses as the Open Space (S80) zone.
Transportation and Utility Corridor (S94)	Intended to create and protect corridors for existing/future transportation or utility facilities. Permitted uses include essential services (fire protection), horticulture (all types), tree crops, and row and field crops.
Limited Agriculture (A70)	Intended to create and preserve areas for agricultural crop production. Same basic permitted uses as the Open Space (S80) zone.

Table D.10-4
County of San Diego Zoning Designations

Zoning Designations	Intent and Permitted Uses
General Agriculture (A72)	Intended to create and preserve areas for raising crops and animals. Permitted uses include family residential essential services (fire protection and law enforcement), horticulture (all types), tree crops, row and field crops, and packing and processing (limited).
Indian Reservation	Tribal lands
Heavy Commercial (C37)	Intended to create and enhance areas where commercial use is the primary focus. Permitted uses include (but are not limited to) law enforcement services, minor impact utilities, animal sales and services, automotive and equipment, retail services, and horticulture (all types)
Rural Commercial (C40)	Intended to create and enhance commercial centers serving agricultural areas with a broad range of goods and services. Largely the same permitted uses as the Heavy Commercial (C37) zone.

Source: County of San Diego 2014a

D.10.1.2 Environmental Setting for the Proposed Power Line Replacement Projects

TL682

Existing Land Uses

As shown in Figure B-3, the existing TL682 runs parallel to -SR-76 west from Rincon Substation to East Grade Road, and then travels north along the western shore of Lake Henshaw, crosses the lake and then heads east to Warner Substation located near SR-79. TL682 originates at SDG&E’s existing Rincon Substation, located approximately 11 miles east of I-15 and 900 feet south of the SR-76/County Highway S6 (Valley Center Road) intersection. From the substation, TL682 travels in a northeasterly direction across County lands for approximately 1.7 miles, crossing County Highway S6, rural residential lands, active agricultural lands, and SR-76. TL682 then turns in an easterly direction and briefly crosses an isolated portion of the Pauma and Yuima Indian Reservation supporting rural residential land uses. Upon exiting Tribal lands, the power line traverses SR-76 and undeveloped, agricultural, and rural residential County jurisdictional lands for approximately 1 mile. At this point TL682 briefly traverses rural residential Tribal lands of the La Jolla Indian Reservation and then spans SR-76 and an isolated patch of County rural residential lands surrounded by Tribal lands (see Figure B-3) for approximately 2.5 miles.

Approximately 6 miles east of the Rincon Substation, TL682 re-enters Tribal lands of the La Jolla Indian Reservation and spans undeveloped, rural residential and recreation lands, SR-76, and the San Luis Rey River. Recreational land uses along the approximate 3-mile segment through the reservation include the Amago Sports Park (a 3-track moto-cross park); and the La Jolla Indian Campground features seven camping areas accommodating both tents and RVs and also includes walking trails, a trading post, sports bars, arcade game room, and a dump station

(see Section D.13, Recreation, for additional information). After exiting the reservation, TL682 then proceeds in a southeasterly direction towards Lake Henshaw primarily over undeveloped County and Forest Service lands located adjacent to SR-76 and the San Luis Rey River. In addition to undeveloped lands, TL682 traverses the Denver C. Fox Outdoor Education School, which provides outdoor education programs established by the Department of Education and San Diego County school districts to area youths.

After passing the school, the power line then briefly traverses County rural residential lands located adjacent to SR-76. From there TL682 proceeds in a southeasterly direction across Forest Service lands and traverses the San Luis Rey Picnic Grounds. The picnic grounds offer 17 picnic sites and provide access to a nearby fishing pond (Wildernessnet.com 2013). After passing the picnic grounds, the power line traverses the San Luis Rey River and undeveloped County and Forest Service land located adjacent to SR-76 for approximately 2 miles prior to turning to the north near East Grade Road and travelling around the western shoreline of Lake Henshaw (see Figure B-3). Along this segment, the power line traverses undeveloped County and Forest Service lands. After travelling in a northerly direction, TL682 then turns to the southeast, crosses Lake Henshaw and undeveloped lands within the drainage basin of the lake, and finally arrives at the Warners Substation located approximately 2.5 miles southwest of the community of Warner Springs. Prior to interconnecting to the Warners Substation, the power line crosses SR-79.

Planned Land Uses

Outside of the CNF, TL682 traverses a generally rural and agricultural landscape supporting rural and semi-rural residential land uses and rural residential and limited agriculture zoning. The various rural and semi-rural land use designations applied to lands traversed by TL682 (including SR-10, RL-20, RL-40, and RL-80; see Table D.10-3 for descriptions) support single-family residences and occasionally, accessory buildings and structures associated with on-site agricultural operations. Segments of TL682 also traverse the La Jolla Indian Reservation and the Pauma and Yuima Indian Reservation (reservations are designated Tribal Lands and zoned Indian Reservation by the County of San Diego), and rural residential and recreation uses are located in the general vicinity of the power line. Portions of the power line on Forest Service lands within the CNF are designated Public Agency Lands and zoned Open Space – Conservation by the County (see Table D.10-3). Within the CNF, undeveloped lands in the vicinity of TL682 are generally designated Back Country or Back-Country Non-motorized (for example, the Denver C. Fox Outdoor Education School is located on land designated Back Country Non-motorized). The power line also spans Forest Service lands designated Critical Biological and Developed Area Interface. Portions of the San Luis Rey River through the CNF are designated Critical Biological by the Forest Service as the river supports a large population of southwestern willow flycatcher. Forest Service lands near East Grade Road and Lake

Henshaw support power line access roads and are therefore designated Developed Area Interface. Lastly, as TL682 travels north from SR-76 and along East Grade Road to cross the Lake Henshaw drainage, the power line crosses Forest Service-designated Back Country and Developed Area Interface lands located in the Barker Valley IRA. As stated previously, the CNF LMP Amendment would redesignate the majority of lands in the Barker Valley IRA to Recommended Wilderness; however, the land use zones applied to the portion of the IRA crossed by TL682 would not be redesignated by the CNF LMP Amendment. Rather, the area traversed by the power line would maintain the existing Back Country and Developed Area Interface land use zone designations.

TL626

Existing Land Uses

As shown on Figure B-4, TL626 originates at SDG&E's existing Santa Ysabel Substation which is located approximately 1,000 feet east of the SR-79/SR-78 intersection in the unincorporated community of Santa Ysabel. From the substation, TL626 travels south, crossing SR-79, rural residential lands, and undeveloped lands located south of the community of Santa Ysabel. Approximately 1 mile south of the substation, TL626 enters Forest Service lands, traverses the San Diego River and the Inaja Memorial Picnic Area and National Recreation Trail, and then exits the CNF north of Senatac Creek and northwest of Pine Hills. The Inaja Memorial Picnic Area experiences light visitor use and features a parking area, covered picnic tables, and restroom facilities. A short looped hiking trail, the Inaja National Recreation Trail, is located nearby. West of Pine Hills, TL626 travels in a southerly direction, traversing sparsely developed rural residential County lands and then re-enters the CNF north of the Boulder Creek Substation. Between the Boulder Creek Substation and the Descanso Substation (both located on County lands), TL626 spans sparsely developed County and Forest Service lands featuring unpaved access roads and supporting several creeks. South of C79, TL626 travels in a southwesterly direction for approximately 2 miles and then turns to the southeast and generally follows Boulder Creek Road towards the unincorporated community of Descanso. Along Boulder Creek Road, TL626 traverses rural residential lands uses and passes near the Stallion Oaks Campground. In addition, prior to entering the Descanso Substation, the power line traverses the California Riding and Hiking Trail, which is partially aligned along Boulder Oaks Road. The area surrounding the Descanso Substation supports rural residential development, dirt access roads, and natural lands.

Planned Land Uses

Upon exiting the Santa Ysabel substation, TL626 travels south and briefly traverses the eastern extent of the small County of San Diego community of Santa Ysabel. Along this segment,

TL626 spans County lands designated Open Space (Conservation), Rural Commercial, Village Residential 2.9 (VR-2.9), and Rural Lands (RL-80). County lands are zoned Rural Residential (RR), Heavy Commercial (C37), and General Agriculture (A72), respectively, and the allocation of land use and zoning designations reflects the rural residential character of the Santa Ysabel community. To the south, TL626 spans Forest Service lands designated Developed Area Interface, Back Country Non-Motorized, and Back Country near SR-79 and the Inaja Memorial Picnic Area. TL626 then briefly exits the CNF and traverses County lands designated Rural Lands 40 (RL-40) and zoned General Agriculture (A72). The remaining portion of TL626 is located on County lands and Forest Service lands in the CNF and spans rural residential lands (County) and lands designated Developed Area Interface, Back Country, Back Country Non-motorized, and Back Country Motorized Use Restricted by the Forest Service prior to interconnecting with the Descanso Substation.

Portions of TL626 span the Upper San Diego and Cedar Creek publicly proposed undeveloped areas and the No Name and Sill Hill IRAs. The preferred alternative of the CNF LMP Amendment would designate the majority of the land use zones associated with these areas as Recommended Wilderness. TL626 largely avoids lands in the Upper San Diego publicly proposed undeveloped areas and in the No Name and Sill Hill IRAs that would be designated Recommended Wilderness by the LMP Amendment; however, portions of Recommended Wilderness in the Cedar Creek publicly proposed undeveloped area would be traversed by a short segment of the existing TL626 alignment.

TL625

Existing Land Uses

TL625 has three distinct segments that together cover approximately 22 miles. The northern segment (i.e., Descanso Substation to the Barrett Tap) begins at the Descanso Substation and travels in southerly direction passing through the rural residential area of Descanso and via an alignment along an existing dirt access road. West of Vieja Grade Road, the power line travels along an existing dirt road maintained by the Forest Service for approximately 1 mile and then briefly traverses County lands and the Sweetwater River. South of the river, TL625 briefly traverses undeveloped Forest Service lands via an existing dirt access road prior to crossing I-8 and then again crosses Forest Service lands south of the interstate. TL625 then proceeds south to Japatul Valley Road and then generally follows the roadway alignment for approximately 6 miles to the Barrett Tap. Both Forest Service and County lands are traversed by this segment of the power line, and land uses adjacent to Japatul Valley Road include rural residential and agriculture (several roads and creeks are spanned by this segment of the existing alignment).

From the Barrett Tap to the Loveland Substation, TL625 follows Japatul Road and briefly traverses County lands for approximately 0.5 mile (see Figure B-5). The power line then traverses Forest Service lands for 1 mile along Japatul Road, crossing undeveloped lands and an existing high-voltage power line. TL625 then traverses rural residential County lands located south of Japatul Road and then re-enters the CNF south of Japatul Road and the Sweetwater River. From this location, the power line proceeds in a easterly direction along elevated terrain located north of Loveland Reservoir (the line crosses the reservoir where Sweetwater River enters the water body from the northeast) and crosses the access trail connecting the reservoir parking area off of Japatul Road to the public fishing access area along the reservoir shoreline. This segment of TL625 also traverses the California Riding and Hiking Trail south of Japatul Road and north of Loveland Reservoir. The power line then traverses undeveloped County lands prior to arriving at the Loveland Substation.

South of the Barrett Tap, TL625 crosses a patchwork of County and Forest Service jurisdictional lands featuring rural residential land uses, undeveloped lands, and dirt access roads. Near Lyons Valley Road and northwest of C157, TL625 crosses the alignment of an existing high voltage power line and then proceeds in a southwesterly direction crossing Lyons Valley Road, Skye Valley Road, and Wilson Creek. TL625 then enters Forest Service lands, turns to the southeast and travels alongside an existing Forest Service road. Undeveloped and rural residential County lands are briefly traversed by the power line which continues along a southeasterly alignment spanning both County and Forest Service lands prior to interconnecting with the Barrett Substation. As shown on Figure B-5, east of the Barrett Substation TL625 briefly traverses undeveloped BLM-managed lands prior to spanning County lands and entering the substation site.

Planned Land Uses

TL625 traverses County and Forest Service lands and briefly traverses BLM lands between the Barrett Tap and the Barrett Substation. Between the Descanso Substation and the Barrett Tap, TL625 spans moderately developed rural residential areas and is primarily located adjacent to paved or unpaved roadways. Applicable land use zones within the CNF include Developed Area Interface and Back Country Motorized Use Restricted. County of San Diego land use and zoning designations along the same alignment reflect the rural and agricultural character of the area and include RL-40, S92 (General Rural), A70 and A72, and S80. Between the Barrett Tap and the Loveland Substation, land use designations adjacent to the TL625 alignment are similar to those identified above for the northern segment; however, near the Loveland Reservoir, TL625 traverses non- Forest Service Public Agency Lands. Because these lands surround the Loveland Reservoir, they are assumed to be under Sweetwater Authority ownership (Sweetwater Authority owns the reservoir). Between the Barrett Tap and the Barrett Substation, TL625 traverses a rural

landscape featuring scattered residences, undeveloped, lands, several creeks, and a network of paved and unpaved roads. Residences are generally located in the vicinity of TL625 near the Barrett Tap on lands designated RL-40 and zoned A72 by the County. Forest Service lands along the alignment include Developed Area Interface, Back Country, and Back Country Motorized Use Restricted, and these areas generally support undeveloped lands and unpaved access roads. Lastly, TL625 briefly traverses BLM lands near the Barrett Substation; however, these lands have not been allocated land use designations by the BLM in the South Coast RMP.

TL625 does not traverse existing wilderness and would not traverse Forest Service lands subject to land use zone reallocation as a result of the proposed CNF LMP Amendment. Also, based on a review of publicly available information, BLM lands traversed by TL625 would not be subject to land use reallocation or redesignation subject to the Draft South Coast RMP.

TL629

Existing Land Uses

For purposes of this analysis, TL629 is discussed as four distinct segments: Descanso Substation to the Glencliff Substation, Glencliff Substation to Cameron Tap, Cameron Tap to Cameron Substation, and Cameron Tap to Crestwood Substation. As shown on Figure B-6, the various segments of TL629 traverse Forest Service lands, County lands, BLM lands, and Tribal lands associated with the Campo Indian Reservation. A general summary of the land uses traversed by TL629 is provided below.

From the Descanso Substation, TL629 proceeds east, traversing rural residential land and the Sweetwater River, and then turns to the south travelling adjacent to Tanglewood Drive/River Drive towards Viejas Boulevard and Descanso Elementary School. At the intersection of Tanglewood Drive/River Drive and Viejas Boulevard, TL629 is located adjacent to Descanso Elementary School. The power line then follows Viejas Boulevard east to SR-79, passing rural residential neighborhoods in the community of Descanso. At SR-79, TL629 briefly turns north, crosses the state route, and then heads southeast to Old Highway 80. East of SR-79, TL629 travels alongside Old Highway 80 to the east and passes rural residential land uses and undeveloped lands adjacent to the highway. Approximately 6 miles east of the Descanso Substation in the community of Guatay, TL629 enters the CNF and briefly traverses Forest Service lands, passing within 200 feet of the Pine Creek Trailhead, as the line turns to the south towards the community of Pine Valley (see Figure B-6). The Pine Creek Trailhead provides access to trails located north and south of I-8, including the Secret Canyon Trail which provides northerly access to the Pine Creek Wilderness (see Section D.13, Recreation, for additional information). Upon exiting Forest Service lands southeast of the Pine Valley Trailhead, TL629 crosses Pine Valley Creek and Old Highway 80. Prior to spanning I-8, TL629 passes through

rural residential areas of the Pine Valley community and passes within of 200 feet of Pine Valley Regional Park and the adjacent Pine Valley Multiple Species Conservation Plan (MSCP) Preserve (see Section D.13 for additional information) and within 1,000 feet on Pine Valley Elementary School. TL629 then proceeds south to Pine Valley Road and then turns to the east for approximately 2 miles prior to crossing Sunrise Highway and I-8. After crossing Sunrise Highway and the interstate, the power line traverses Forest Service lands and generally follows Old Highway 80 south to the Glencliff Substation (the substation is located outside of the CNF).

From the Glencliff Substation, TL629 briefly heads east, exits County jurisdictional lands and enters the CNF east of Old Highway 80, and then turns to the south following the Old Highway 80 alignment. The power line generally traverses undeveloped lands located adjacent to the highway; however, approximately 1 mile south of the Glencliff Substation, TL629 traverses Cottonwood Creek. Further to the south, TL629 exits Forest Service lands and traverses County jurisdictional lands adjacent to Old Highway 80 for approximately 2 miles. Land uses along this segment include the SDG&E Mountain Empire Training Facility that provides equipment training for SDG&E employees on dozers, digger derricks, boom trucks, bobcats, and backhoes (County of San Diego 2008) and an SDG&E communications facility located adjacent to the training facility. On County lands to the south, TL629 traverses a narrow tributary of Kitchen Creek, re-enters Forest Service lands, crosses the Pacific Crest National Scenic Trail (PCT), and passes within 200 feet of the Forest Service -managed Boulder Oaks Campground. South of the campground the power line deviates from the highway alignment and travels along an unimproved Forest Service road to the Cameron Tap.

South of the Cameron Tap, TL629 briefly traverses Forest Service lands alongside an existing access road and then exits the CNF and crosses undeveloped County lands and La Posta Creek. Approximately 1 mile south of the Cameron Tap, TL629 re-enters the CNF and proceeds to the south traversing several access roads and Cameron Truck Trail. The remaining 3 miles of TL629 into the Cameron Substation is aligned alongside existing roads, traverses rural residential and undeveloped County lands, and briefly spans public lands managed by the BLM. BLM-managed lands alongside the alignment are primarily undeveloped but support access roads and existing electrical infrastructure.

As shown on Figure B-6, east of the Cameron Tap TL629 proceeds in a northeasterly direction and briefly follows the alignment of La Posta Creek and Old Highway 80. County jurisdictional lands supporting local roadside commercial uses and undeveloped lands are located along this short segment of TL629. Further to the east, the power line spans a U.S. Immigration and Naturalization Service (INS) facility that includes several large buildings to support INS operations, surface parking areas for employees and fleet service vehicles, utilities infrastructure (e.g., fuel and water storage tanks), and other miscellaneous support structures for maintenance

and operational purposes. After traversing the INS facility, TL629 enters Forest Service lands and travels alongside an existing access road for approximately 2 miles. After exiting the CNF, TL629 briefly proceeds east and then turns south and follows an access road across County and BLM jurisdictional lands. Along this segment, the power line traverses sparsely developed rural residential lands, Miller Creek, and dirt access roads. West of the Crestwood Substation, TL629 enters the Campo Indian Reservation and proceeds in a southeasterly direction to the substation across primarily undeveloped lands and access roads. The Golden Acorn Casino and Travel Center is located approximately 1,100 feet north of the Crestwood Substation.

Planned Land Uses

As shown on Figure B-6, north of I-8 TL629 is located adjacent to existing roadways and spans both County and Forest Service lands near the unincorporated communities of Descanso, Guatay, and Pine Valley. South of I-8 and the Glencliff Substation, TL629 is generally located adjacent to existing roadways and traverses both County and Forest Service lands. Segments of TL629 also briefly traverse public lands managed by the BLM and Tribal lands of the Campo Kumeyaay Nation. Between the Descanso and Glencliff substations, the TL629 alignment follows paved roadways in rural communities, and the applicable County land use designation (i.e., RL-40, RL-80, SR-10, SR-4) and zoning (i.e., S92, A70, S80) along this segment reflect the rural character of the surrounding area. Forest Service lands traversed by TL629 are designated Developed Area Interface presumably on account of their location adjacent to existing paved roadways including Old Highway 80. Between the Glencliff Substation and Cameron Tap, TL629 primarily follows the alignment of Old Highway 80 and traverses Forest Service lands designated Developed Area Interface and Back Country; Developed Area Interface land use zones are located near the Glencliff Substation, and Forest Service lands adjacent to the I-8 corridor (including the Boulder Oaks campground) are designated Back Country. County land use and zoning designations adjacent to the TL629 alignment along Old Highway 80 between the Glencliff Substation and the Cameron Tap include rural lands (RL-40 and RL-80), General Rural (S92), General Agriculture (A72), and Open Space (S80). Between the Cameron Tap and the Cameron Substation and the Cameron Tap and Crestwood Substation, a patchwork of County, Forest Service, and BLM lands is present; Forest Service land use zones along the alignment include Back Country and Back Country Motorized Use Restricted, and County land use and zoning designations include RL-40, RL-20, S92, and S80. As stated previously, public lands in the project area and within the boundary of the South Coast RMP are not assigned land use zones or designations by the BLM. Lastly, at this time, land use zones established by the Campo Kumeyaay Nation and applied to Campo Tribal lands are unknown; however, Campo lands are identified as Tribal Lands and zoned Indian Reservation by the County of San Diego.

Forest Service lands traversed by TL629 are not subject to land use zone reallocations proposed by the CNF LMP Amendment. In addition, based on a review of publicly available information,

BLM lands traversed by TL629 are not subject to reallocation or redesignation per the Draft South Coast RMP.

TL6923

Existing Land Uses

Located between the Barrett Substation and the Cameron Substation, TL6923 is an east–west power line that traverses County, BLM, and Forest Service lands south of Hauser Creek and north of SR-94 (see Figure B-7). From the Barrett Substation, TL6923 briefly crosses designated County open space and then enters BLM-managed public lands. After crossing Tumeric Way, the power line turns to the south and follows the roadway for approximately 900 feet, at which point TL6923 leaves the roadway, briefly traverses undeveloped lands, and then follows an unnamed dirt access road to the southeast. TL6923 then turns to the east, follows an existing access road, and then traverses open space, Barrett Lake Road, and the southerly tributary of Cottonwood Creek (see Figure B-7). TL6923 proceeds in an easterly direction through McAlmond Canyon and then traverses higher elevation BLM-managed lands to the south. Upon exiting BLM lands, TL6923 follows existing dirt access roads and briefly traverses a small valley in Round Potrero supporting agricultural uses. Upon re-entering BLM lands approximately 6 miles east of the Barrett Substation, TL6923 follows an existing access road, enters the CNF and traverses Potrero Creek. TL6923 turns to the northeast, briefly traverses BLM lands, and follows an existing dirt access road across Forest Service lands. This segment of the power line parallels the alignment of an existing high voltage power line (i.e., the Sunrise Powerlink) and south of the Hauser Wilderness, TL6923 and the Sunrise Powerlink span the PCT at three separate locations. TL6923 runs parallel to the Sunrise Powerlink for approximately 3 miles and crosses the 500-kilovolt (kV) power line north of Big Potrero Truck Trail and at Hauser Creek. Near the Hauser Creek crossing, TL6923 turns to the southeast and traverses County lands supporting limited agriculture, rural residential land uses, and transportation uses (the line crosses Big Potrero Truck Trail and Lake Morena Drive). East of Lake Morena Drive TL6923 follows an existing dirt access road up and over a small hill into the Cameron Substation.

Planned Land Uses

As shown on Figure B-7, TL6923 spans County of San Diego and BLM-managed lands located north of the unincorporated community of Potrero. County land use and zoning designations surrounding the eastern portion of the alignment reflect the sparsely developed, rural character of the area (land use designations include OS-C and RL-40), and the rural residential/agricultural character of the area surrounding the western extent of the alignment is expressed through rural and semi-rural residential land use and zoning designations allocated in the Lake Morena and

Campo areas. Forest Service lands traversed by TL6923 are remotely located and generally supports trail-based recreation use including segments of the PCT located south of Hauser Mountain and the Hauser Wilderness. Applicable Forest Service land use zones traversed by TL6923 include Back Country Motorized Use Restricted and Back Country.

TL6923 does not traverse the Hauser South Recommended Wilderness, and Forest Service lands traversed by TL6923 are not subject to land use zone reallocations proposed by the CNF LMP Amendment. In addition, based on a review of publicly available information, BLM lands traversed by TL6923 are not subject to reallocation or redesignation per the Draft South Coast RMP, and TL6923 does not traverse public lands within the Hauser Mountain Wilderness Study Area.

C79

Existing Land Uses

C79 is an approximate 2-mile distribution line located within the CNF and Cuyamaca Rancho State Park (see Figure B-4). From its deviation from TL626, C79 travels in a northeasterly direction across undeveloped Forest Service lands, Boulder Creek Road and other dirt access roads. Approximately 0.5 mile east of TL 626, C79 enters the King Creek Research Natural Area (RNA) and remains within boundaries of the RNA for approximately 1.5 miles. Managed by the Forest Service for preservation of 50-acre Cuyamaca cypress (*Cupressus stephensonii*) stands in the King Creek drainage, the 1,000-acre King Creek RNA occupies the southwest-facing slope of Cuyamaca Peak (Forest Service 2013b). According to the CNF LMP, uses that retain the research values for which the area is designated are appropriate within RNA (Forest Service 2005a). Upon exiting the RNA, C79 traverses the western slopes of Cuyamaca Peak and terminates atop the peak. From Cuyamaca Peak, C79 follows Lookout Road within Cuyamaca Rancho State Park and descends the east-facing slope of the peak to an existing utility pole located east of the Paso Picacho campground and SR-79. Within the State Park, C79 traverses the Cuyamaca Mountain State Wilderness (approximately 13,200 acres of the state park's 24,700 acres, are designated as wilderness) (California Department of Parks and Recreation 2013).

Planned Land Use

As shown on Figure B-4, the existing C79 alignment spans Forest Service and state park lands. Applicable Forest Service land use zones traversed by C79 include Back Country, Back Country Non-motorized, and Critical Biological (the King Creek RNA is designated Critical Biological). Within state park boundaries, segments of the existing overhead C79 alignment traverse the Cuyamaca Mountain State Wilderness and non-wilderness lands (lands adjacent to Lookout Road are managed by the Department of Parks and Recreation as scenic open space).

The existing overhead alignment of C79 within the CNF does not traverse existing Recommended Wilderness; however, lands traversed by C79 are subject to the land use zone reallocations proposed by the CNF LMP Amendment. More specifically, existing Back Country Non-motorized lands adjacent to the King Creek RNA (i.e., lands within the Sill Hill IRA) would be redesignated Recommended Wilderness. In addition, as stated in Section D.10.1.1, the Department of Parks and Recreation is in the process of preparing an updated General Plan for Cuyamaca Rancho State Park; however, the draft General Plan document is not yet available for public review. As such, the future allocation of land use zones in the state park including those applicable to the C79 alignment along Lookout Road is not known at this time.

C78

Existing Land Uses

C78 is located in the vicinity of Viejas Indian Reservation and runs from Simon Drive east for approximately 2 miles, mostly across Forest Service-administered lands, and terminates at Via Arturo Road on County jurisdictional lands. The C78 alignment is depicted on Figure B-5. East of Simon Road, the C78 alignment spans a sparsely developed rural residential area on the outskirts of the Viejas Indian Reservation. Approximately one residence is located in the vicinity of the C78 alignment near Viejas Grade Road (an unpaved road), and the distribution line traverses a undulating, primarily undeveloped landscape. A short segment of C78 is also aligned along Via Arturo, a narrow unpaved road with connectivity to Viejas Grade Road.

Proposed Land Uses

As shown on Figure B-5, C78 traverses County and Forest Service lands. Applicable County land use designations traversed by the alignment include RL-40, and applicable Forest Service land use zones include Developed Area Interface and Back Country. Further reflecting the open, rural character of area surrounding the C78 alignment, zoning designations spanned by C78 include A70, S80, and S92.

Forest Service lands traversed by C78 are not subject to land use zones reallocations proposed by the CNF LMP Amendment. In addition, C78 does not traverse Recommended Wilderness established in the CNF LMP.

C157

Existing Land Uses

C157 is approximately 3.5 miles long and spans primarily undeveloped County of San Diego land and Forest Service lands within the CNF near Barrett Lake (see Figure B-5). As measured

from west to east and for purposes of SDG&E's proposed project, C157 originates at Skye Valley Road (approximately 0.5 mile east of Japatul Lyons Valley Road) and proceeds in an easterly direction across undeveloped lands along the general alignment of Skye Valley Road. C157 traverses undeveloped County and Forest Service lands located south of Skye Valley Road and approximately 1.5 miles east of Lyons Valley Road, a short segment of C157 extends to the north, crosses a local creek with connectivity to Barrett Lake, and terminates at Camp Barrett. Camp Barrett is a 24-hour, minimum-security boys-only juvenile rehabilitation facility operated by the County of San Diego Probation Department (County of San Diego 2013). Delinquent males between the ages of 16.5 and 18 years old are typically sentenced to Camp Barrett for a period of between 270 and 547 days where they are required to attend school, complete assigned camp work tasks, and complete a demanding structural program focused on successful reintegration (County of San Diego 2013). From the extension to Camp Barrett, C157 also proceeds in an easterly direction, crossing Skye Valley Road, undeveloped lands, and Pine Valley Creek. North of Barrett Lake, C157 briefly traverses the Pine Creek Wilderness (approximately 500 feet of the line is located within Pine Creek Wilderness), spans County lands and then again traverses the Pine Creek Wilderness, non-wilderness Forest Service lands and the Hauser Wilderness. After exiting the Hauser Wilderness and Forest Service lands, C157 briefly proceeds in a southeasterly direction, crosses Skye Valley Road, and then turns to the northeast towards its terminus at Skye Valley Ranch.

Planned Land Uses

In addition to spanning the Back Country Motorized Use Restricted land use zone in the CNF, segments of C157 traverse Existing Wilderness (i.e. the Pine Creek Wilderness and the Hauser Wilderness) located north and east of Barrett Lake. In addition to Forest Service lands, C157 also spans County lands and land use and zoning designations along the C157 alignment include OS-C, RL-40, and A72. With the exception of Skye Valley Ranch and Camp Barrett, existing development near the C157 alignment is extremely sparse and consists primarily of unpaved access roads.

Forest Service lands spanned by C157 are not subject to land use zone reallocations proposed by the CNF LMP Amendment.

C442

Existing Land Uses

As shown on Figure B-6, C442 includes a segment north of I-8 and a segment south of the interstate. North of I-8, C442 is generally located adjacent to Pine Creek Road and Pine Creek Tract, a small access road providing access to residences located east of Pine Creek Road and

Pine Creek. From south to north, C442 travels in a northerly direction and periodically extends beyond the main alignment to provide service to rural residences along Pine Creek Road and Pine Creek Tract. C442 is primarily located west of Pine Creek; however, two crossings are made to provide service to homes located east of the creek. Approximately 36 residences are located within 1,000 feet of C442. At its southern terminus, C442 is located within 800 feet west of the Noble Canyon trailhead.

South of I-8, C442 originates west of the Bear Valley OHV Trailhead and south of a small turnaround parking area located at the southern terminus of Pine Valley Road. Located on Forest Service lands, the Bear Valley OHV Trailhead provides OHV enthusiasts access to the Bear Valley Trail which in turn provides access to the Coral Canyon OHV Area to the south. From the trailhead, C157 proceeds in a southerly direction alongside a dirt Forest Service road, and approximately 2 miles of the line are located on Forest Service lands within CNF. After exiting the CNF, C157 proceeds in a slightly southwesterly direction along an existing access road and undeveloped County lands. The segment of C157 located on County jurisdictional lands passes within 1,000 feet of three residences.

Planned Land Uses

North of I-8, C442 is located entirely on Forest Service lands designated Developed Area Interface. The rural residential neighborhood spanned by C442 is located adjacent to Pine Creek Road and Pine Creek Tract and encompasses the Forest Service-designated Pine Creek Recreation Residential Tract. South of I-8, C442 spans Developed Area Interface and Back Country Non-motorized designated lands situated between the Pine Creek Wilderness to the west and I-8 to the east. With the exception of the existing distribution circuit, access roads, and dispersed residences near the southern terminus of C442 and Los Pinos Road, the area surrounding the distribution circuit is undeveloped. County land use and zoning designations applied to lands surrounding the southern segment of C442 include RL-80 and A72.

Forest Service lands traversed by C442 are not subject to land use zone reallocations as proposed by the CNF LMP Amendment.

C440

Existing Land Uses

As shown in Figure B-6, C440 traverses Forest Service lands in the CNF including the Laguna Mountain Recreation Area and several discontinuous “islands” of County jurisdictional land. From the Glencliff Substation, C440 crosses I-8 and then turns to the north; approximately 1 mile of this segment of the distribution circuit is located on primarily undeveloped County lands.

C440 continues in a northerly direction across Forest Service lands prior to crossing Sunrise Highway and then generally follows the alignment of the highway for approximately 4 miles. As shown on Figure B-6, C440 deviates from the highway, exits CNF, and briefly traverses undeveloped County lands near Sheephead Mountain Road. This segment travels in an easterly direction and eventually branches off to the north, spanning County lands, Forest Service lands, and Sunrise Highway. West of Kitchen Creek Road, C440 reenters the CNF and turns to the north toward Sunrise Highway. Near Wooded Hill Road, C440 again branches to the south, traverses Forest Service and County lands, and provides power to rural residences located along Morris Ranch Road (residences are located on County lands) and south of Agua Dolce Creek. The main alignment of C440 continues to follow Sunrise Highway in a northerly direction and spans Forest Service lands and small pockets of County lands. Land uses near this segment of C440 include undeveloped lands, rural residential lands, commercial businesses (i.e., The Eagle and the Bear Café) and recreation land uses including the Forest Service-managed Burnt Rancheria Campground and the PCT.

North of the Burnt Rancheria Campground, C440 is concentrated along Sunrise Highway and branches off in multiple locations to provide power to numerous recreation residences located east and west of the highway. Additional land uses near C440 include undeveloped forestlands, visitor serving commercial and lodging, public facilities (fire station), recreation including the Desert View picnic area and trail, the PCT and the Laguna Campground. Further to the north, C440 traverses multiple Forest Service roads and several recreation trails located near the Laguna Campground. Additional detail regarding recreation facilities, trails, and other opportunities available in the Laguna Mountain Recreation Area is provided in Section D.13, Recreation.

The proposed underground alignment of C440 originates near the intersection of Old Highway 80 and Sunrise Highway, and proceeds in a northerly direction along the highway on Forest Service lands for approximately 4 miles. The alignment then briefly exits the CNF and traverses County lands (the proposed underground alignment remains within the Sunrise Highway right-of-way) and then re-enters the national forest and continues in an easterly direction for approximately 3 miles. This segment of the proposed C440 undergrounding terminates west of Wooded Hill Road and approximately 1.5 miles southwest of the Burnt Rancheria Campground. A discontinuous, approximate 0.50-mile underground segment of C440 is also proposed near the Laguna Campground and more specifically, along Los Huecos Road.

Planned Land Uses

C440 is primarily located adjacent to Sunrise Highway and within the CNF land use zones consist primarily of Developed Area Interface with occasional allocations of Back Country.

Lands adjacent to Sunrise Highway generally support access roads, recreation residences, and public facility and limited commercial development, and therefore, the Developed Area Interface land use zone is often applied. Land use designations associated with County lands in the vicinity of the existing overhead distribution line and proposed underground alignment include RL-80, Public/Semi-Public Facility, and Public Agency Lands. Relevant zoning designations include A72, S80, and S92.

Forest Service lands traversed by C440 (i.e., the existing overhead and the proposed underground alignments) are not subject to land use zone reallocations as proposed by the CNF LMP Amendment.

C449

Existing Land Uses

C449 is approximately 7 miles long and traverses Forest Service land in CNF and County lands near Lake Morena County Park and the Morena Reservoir (see Figure B-6). C449 is primarily located on Forest Service lands; however, three relatively short segments of the distribution circuit traverse County lands. The western alignment of C449 originates on Forest Service lands approximately west of Old Highway 80. From this point, C449 proceeds in a westerly direction towards Buckman Springs Road, spans Cottonwood Creek and the PCT, and then heads north and passes within 500 feet of Mountain Empire High School. C449 then turns south and travels along Buckman Springs Road and Morena Stokes Road towards Camp Morena. While the proposed underground alignment is located alongside Morena Stokes Road, a portion of the existing overhead alignment is located east of Buckman Springs Road and Morena Stokes Road, and spans Cottonwood Creek, the PCT and the Lake Morena County Park boundary. The western segment of C449 (both the existing overhead and the proposed underground alignments) terminates at Camp Morena, a Navy installation and component of Naval Base Coronado (Naval Base Coronado 2013).

For purposes of this analysis, the “eastern” segment of C449 originates near Old Highway 80 and Boulder Oaks Campground and as a component of SDG&E’s proposed project, the eastern segment of C449 would be removed. This segment of C449 is located on Forest Service lands and spans the PCT twice, Old Highway 80 and Boulder Oaks Campground and then proceeds in a southerly direction across undeveloped Forest Service and County lands located east of La Posta Creek. Near Buckman Springs Road, C449 spans La Posta Creek and then follows the alignment of Buckman Springs Road to its terminus just south of Morena Village Drive. Two residences are located within 1,000 feet of the southern terminus of the eastern segment of C449.

Planned Land Uses

On Forest Service lands, C449 traverses several CNF land use zones including Back Country, Back Country Non-motorized, Back Country Motorized Use Restricted, and Developed Area Interface. County lands traversed by C449 generally display a rugged, rural character and are designated public agency lands (this designation coincides with CNF boundary and Forest Service land use jurisdiction), RL-80 and RL-40. County zoning designations allocated in the vicinity of C449 include A72 and S80.

Forest Service lands traversed by C449 (i.e., the existing overhead and the proposed underground alignments) are not subject to land use zone reallocations as proposed by the CNF LMP Amendment.

D.10.2 Applicable Regulations, Plans, and Standards

The following section presents a description of plans, policies, ordinances, and regulations applicable to SDG&E’s proposed project. In addition to the federal regulations identified in Table D.10-5, TL682 traverses lands of the La Jolla Band of Luiseno Indians and the Pauma-Yuima Band of Mission Indians, TL629 traverses the Campo Indian Reservation between the Cameron Tap and the Crestwood Substation, and the proposed reconductoring of C78 partially occurs on the Viejas Indian Reservation. Therefore, construction, operations, and maintenance activities associated with these facilities may be subject to land use regulations and/policies of the Bureau of Indian Affairs (BIA) and Tribe-specific policies and plans.

Table D.10-5 lists the applicable land use plans and regulations by proposed component.

Table D.10-5
Applicable Plans and Regulations by Project Component

Project Component	Applicable Plans and Regulations*
TL682	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 - Chapter 2720
	Wild and Scenic Rivers Act of 1968
	Federal Land Policy Management Act
TL626 ¹	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 - Chapter 2720
	Federal Land Policy Management Act
TL625	Forest Service Strategic Plan

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.10 LAND USE AND PLANNING**

**Table D.10-5
Applicable Plans and Regulations by Project Component**

Project Component	Applicable Plans and Regulations*
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 - Chapter 2720
	Federal Land Policy Management Act
	BLM South Coast Resource Management Plan
	BLM South Coast Resource Management Plan Draft Revision
TL629	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 - Chapter 2720
	Wild and Scenic Rivers Act of 1968
	Federal Land Policy and Management Act
	CFR 36 Section 261.20 Pacific Crest National Scenic Trail and Comprehensive Management Plan for the Pacific Crest National Scenic Trail
	BLM South Coast Resource Management Plan
	BLM South Coast Resource Management Plan Draft Revision
TL6923	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 - Chapter 2720
	Federal Land Policy Management Act
	CFR 36 Section 261.20 Pacific Crest National Scenic Trail and Comprehensive Management Plan for the Pacific Crest National Scenic Trail
	BLM South Coast Resource Management Plan
	BLM South Coast Resource Management Plan Draft Revision
C79	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 – Chapter 2720
	Wilderness Act of 1964
	Federal Land Policy Management Act
	California Wilderness Preservation System
	Cuyamaca Rancho State Park General Plan and Cuyamaca Rancho State Park Draft General Plan Revision
C78	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 – Chapter 2720
	Federal Land Policy Management Act

Table D.10-5
Applicable Plans and Regulations by Project Component

Project Component	Applicable Plans and Regulations*
C157	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2300 – Recreation, Wilderness, and Related Resource Management. Chapter 2320 – Wilderness Management
	Forest Service Manual 2700 – Chapter 2720
	Wilderness Act of 1964
	Federal Land Policy Management Act
C442	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 – Chapter 2720
	Federal Land Policy Management Act
C440	Forest Service Strategic Plan
	Southern California National Forests Land Management Plan
	Southern California National Forests Land Management Plan Amendment
	Forest Service Manual 2700 – Chapter 2720
	Federal Land Policy Management Act
	Wild and Scenic Rivers Act of 1968
C449	Forest Service Strategic Plan
	Southern California National Forest Land Management Plan
	Southern California National Forest Land Management Plan Amendment
	Forest Service Manual 2700 – Chapter 2720
	Federal Land Policy Management Act
	Wild and Scenic Rivers Act of 1968

Notes:

- * Pursuant to Article 12, Section 8, of the California Constitution, SDG&E's proposed project is not subject to local plans, policies, or regulations. The CPUC and Forest Service have independent jurisdiction and approval authority for the project; the CPUC is the lead agency under California law and the Forest Service is the lead federal agency. However, state agencies such as the CPUC are required to consider local land use policies and regulations when making decisions. Therefore, while local plans and policies are not considered applicable and are not listed Table D.10-5, they are included in Appendix LU-1a for informational purposes only and are utilized to assist in determining local land use compatibility.
- 1. Forest Service Manual 2300 (as it relates to wilderness management) would be applicable to TL626 pending approval and adoption of the Southern California National Forests LMP Amendment.

D.10.2.1 Federal Regulations

Forest Service

Forest Service Strategic Plan

The Strategic Plan provides direction that guides the Forest Service in delivering its mission to “sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations” (Forest Service 2007). Strategic plans are prepared every 5 years to identify major issues important to the management of national resources and to establish strategic goals that the Forest Service will focus on nationwide for the 5-year period. Key items of the Fiscal Years 2007–2012 strategic plan (a current Fiscal Year plan covering 2013 is not yet available for public review) identified for Forest Service focus includes the provision and sustainment of benefits to the American people, conservation of open space, addressing energy resource needs, and protecting forests and grasslands from conversion to other uses (Forest Service 2007).

Southern California National Forests Land Management Plan

The Southern California National Forests LMP describes the strategic direction at a broad program-level for managing the Angeles, Los Padres, San Bernardino, and Cleveland national forests (collectively referred to as the Southern California National Forests). The LMP consists of three interrelated parts (Part 1, 2, and 3) that work together to “facilitate the use of adaptive management and the development of the management activities” in order to move the national forest towards their desired outcome (Forest Service 2005b, 2005a, and 2005c, respectively). Part 1 of the LMP is a vision document that identifies existing management challenges, strategic goals and desired conditions (Forest Service 2005b). Part 2 consists of the CNF LMP and discusses the various land use designations (and suitable uses for each designation), place-based programs, and special designation overlays applicable to the CNF (Forest Service 2005a). Part 3 provides design criteria/forest plan standards and guidelines applicable to the Southern California National Forests including CNF (Forest Service 2005c). The key items contained within Parts 1 through 3 of the Southern California National Forests LMP are discussed below to emphasize their relevancy to SDG&E’s proposed project.

Part 1 Southern California National Forests Vision

- **Goal 7.1.** Retain natural areas as a core for a regional network while focusing the built environment into the minimum land area needed to support growing public needs.

Goal 7.1 is related to the general desired condition that natural and cultural features of the landscape maintain a “sense of place” and that built elements and alterations complement the character of the landscape. To this end, the LMP explains “facilities supporting urban infrastructure needs are clustered on existing sites or designated corridors, minimizing the number of acres encumbered by special-use authorizations. Special-uses serve public needs, provide public benefits, and conform to resource management and protection objectives. All uses are in full compliance with the terms and conditions of the authorization. There is a low level of increase in the developed portion of the landscape as measured by road densities; in fact, over time, the built environment is shifted away from or designed to better protect resource values” (Forest Service 2005b).

In addition, Appendix A, Government Performance and Results Act Priority National Goals, discusses the goals identified in the Forest Service Strategic Plan and identifies applicable objectives that support the goals. In regards to established direction to help meet energy resource needs, Appendix A explains that “the nation's forests and grasslands play a significant role in meeting America’s need for producing and transmitting energy and unless otherwise restricted, National Forest System lands are available for energy exploration, development, and infrastructure occupancy (e.g., well sites, pipelines, and transmission lines” (Forest Service 2005b).

Part 2 Cleveland National Forest Strategy (CNF LMP)

Under the existing CNF LMP, seven land use zones have been identified in the CNF, and the majority of lands (over 50%) are designated Back Country, Back Country Motorized Use Restricted, or Back Country Non-Motorized (Forest Service 2005a). Table D.10-6, below, lists the seven identified land use zones, the existing allocation of each land use zone within the CNF, and the suitability of land use zones for (non-rec) special uses as determined by the Forest Service. The LMP also establishes the suitability of major utility corridors in land uses zones; however, the Forest Service classifies major utility corridors as those containing power transmission lines, pipelines, telecommunication lines, and associated right-of-ways (ROWs), and the three designated major utility corridors in the CNF—Valley/Serrano, the West-Wide Energy Corridor, and Sunrise Powerlink—support or could support a 500 kV transmission line. Because SDG&E’s proposed project considers existing 69 kV power lines and 12 kV distribution lines, the proposed project is not considered to encompass major utilities. Instead, portions of SDG&E’s proposed project with associated access roads are considered Developed Facilities, while portions lacking roads are considered Non-recreational Special Uses: Low Intensity Land Use.

Table D.10-6
Land Use Zones within Cleveland National Forest

Land Use Zone	Allocation within CNF (acres / % of total forest acreage)	Suitability of Non- recreational Special Uses: Low-Intensity Land Use ¹ in Land Use Zone	Suitability of Developed Facilities ¹ in Land Use Zone
Developed Area Interface	40,705 / 9.7%	Suitable	Suitable
Back Country	61,024 / 14.5%	Suitable	Suitable
Back Country Motorized Use Restricted	48,582 / 11.5%	Suitable	*By Exception
Back Country Non-motorized	181,535 / 43.1%	*By Exception	Not Suitable
Critical Biological	2,131 / 0.5%	*By Exception	Not Suitable
Recommended Wilderness	11,377 / 2.7%	*By Exception	Not Suitable
Existing Wilderness	75,523 / 17.9%	*By Exception	Not Suitable

Source: Forest Service 2005a.

Notes:

*By Exception = Conditions which are not generally compatible with the land use zone but may be appropriate under certain circumstances.

1. Portions of SDG&E's proposed project lacking roads are considered Non-recreational Special Uses: Low Intensity Land Use. Portions of SDG&E's proposed project with associated access roads (i.e., portions of TL626 and portions of C442) are considered Developed Facilities.

Per the CNF LMP, specific uses are allowed on National Forest lands except when identified as not suitable due to law, national or regional policy, or forest plan revisions. While identified activities may generally occur unless the forest plan prohibits them, activities are not authorized based solely on land use zoning. The suitable uses identified by the Forest Service per each land use zone are intended as guidance for consideration of future activities and do not affect existing authorized occupancy and uses.

A summary of each land use zone is provided in Section D.10.1.

Special Designation Overlays

Special designation overlays function as overlays to the primary land use zones designated in the CNF. Special designation overlays included in the CNF include Wild and Scenic Rivers, IRAs, RNAs, Special Interest Areas, and Other Designations.

Within the MSUP study area, the Wild and Scenic River overlay is applied to Cottonwood Creek the San Luis Rey River, and San Mateo Creek. Cottonwood Creek and the San Luis Rey River are eligible wild and scenic rivers and are spanned by existing power lines and a distribution circuit. TL629, C440, and C449 traverse Cottonwood Creek in the Descanso Ranger District (more specifically, within the Morena and Laguna places), and TL682 traverses the San Luis Rey River in the Palomar Ranger District. Located in the Trabuco Ranger District, San Mateo Creek is an eligible wild and scenic river. San Mateo Creek is not traversed by a power line or

distribution circuit included in the proposed power line replacement projects, but it is located in the MSUP study area, and therefore, it is assumed that ongoing operations and maintenance work associated with existing infrastructure subject to the proposed MSUP could occur near the creek. According to the LMP, all existing facilities, management actions, and approved uses are allowed in eligible river corridors until a decision is made on inclusion into the National Wild and Scenic River System (provided that uses do not interfere with the protection and enhancement of the river's "remarkable" values) but proposed uses and new facilities are not allowed if they could potentially affect wild and scenic eligibility (Forest Service 2005a).

The King Creek, Agua Tibia, and Organ Valley RNAs are included within the MSUP study area. Located within the Descanso Ranger District, the King Creek RNA is spanned by the existing C79 alignment east of its confluence with TL626 near Boulder Creek Road. The target element of interest for the King Creek RNA is a 50-acre Cuyamaca cypress stand in the King Creek drainage, and according to the LMP, uses that retain the research values for which the site is designated are appropriate (Forest Service 2013). Located in the Agua Tibia Wilderness in the northern extent of the Palomar Ranger District, the Agua Tibia RNA is not spanned by an existing power line or distribution circuit subject to the proposed power line replacement projects, but could support activities that would be covered under the proposed MSUP. The Agua Tibia RNA was established for the study of bigcone Douglas-fir (*Pseudotsuga macrocarpa*) trees. Lastly, the Organ Valley RNA is located atop Black Mountain in the Palomar Ranger District, and while the RNA would not be traversed by any of the proposed power line replacement projects, lands underlying the area would be subject to the proposed MSUP. The Organ Valley RNA is dedicated to the study of Engelmann oaks (*Quercus engelmannii*) (Forest Service 2005a).

Existing Special Interest Areas within the vicinity of the proposed power line replacement projects includes the west fork of the San Luis Rey River. According to the CNF LMP, the west fork is of special interest due to populations of native trout located in the Barker Valley area (Forest Service 2005a). Additional Special Interest Areas in the MSUP study area include the Tecate Cypress of Guatay Mountain (Descanso Ranger District) and the botanical resources of the Chiquito Basin and Pine Mountain (Trabuco Ranger District).

Other designations of note identified by in the LMP include OHV areas, transportation corridors, and recreational residential tracts. The Corral Canyon OHV Area is located in the Descanso Ranger District and the Wildomar OHV Area is located in the Santa Ana Mountains and the Trabuco Ranger District. In addition, SR-74 (Ortega Highway) and I-8 through the CNF are Designated Transportation Corridors, and the Valley/Serrano utility corridor (a 12-mile corridor that supports an existing 500 kV transmission line) is the sole Designated Utility Corridor in the CNF. Lastly, the Guatay, Burnt Rancheria, Laguna, and Pine Creek recreation residential tracts are located near the proposed power line replacement projects in the Descanso Ranger District.

Place-Based Program Emphasis

The CNF is divided into a series of geographical units that are referred to as “Places.” Each place has its own landscape character as well as a distinct theme, setting, desired condition, and program emphasis. The desired condition “paints a picture of what the Place could be as the national forest implements activities as it moves towards the overall forest-wide desired conditions,” and the program emphasis identifies prioritized activities that the CNF intends to emphasize over the next 3 to 5 years.

Places included within the MSUP study area where proposed power line replacement projects are located are identified and described below. For land use purposes, the desired condition and land use based-program emphasis for each area is included below.

Trabuco Ranger District

Silverado Place. The Silverado Place encompasses canyon lands and mountainous terrain located in the northwestern extent of the Trabuco Ranger District in Orange County. The desired condition of the Silverado Place is that it be maintained as a natural appearing landscape functioning as a backdrop for southern Orange County. The land use based-program emphasis for the area includes improved forest health through vegetative maintenance, development of fire protection measures for canyon communities, improved water quality, and improved access and enhanced trail-based recreation opportunities.

San Mateo Place. The San Mateo Place is primarily an undeveloped landscape that includes the west-facing slopes of the central and south Santa Ana mountains. In addition to the San Mateo Canyon Wilderness (included in the southern part of San Mateo Place), SR-74 (Ortega Highway) traverses the area and separates federally designated wilderness occurring to the north from non-wilderness area occurring to the south. The desired condition for the San Mateo Place is that it be maintained as a predominantly naturally evolving landscape that functions as a wildland and wilderness retreat for area residents. The land use based-program emphasis for the area includes maintenance of the existing primitive and semi-primitive character of the area, preservation of solitude and challenge within designated wilderness, and protection of diverse plant and animal species and their habitat.

Elsinore Place. The Elsinore Place is surrounded by urban development and includes the east-facing slopes of the Santa Ana Mountains that serve as the backdrop for motorists and communities located along the I-15 corridor between the Riverside County and San Diego County border and the city of Corona. The desired condition for the area is that it be maintained as an undeveloped island in rapidly urbanizing southern Riverside County, and the land use based-program emphasis includes the provision of a variety of quality recreational experiences,

maintenance of the primarily natural appearance, and improvement of community protection and defensible space.

Palomar Ranger District

Aguanga Place. Located in the northern portion of the Palomar Ranger District, the Aguanga Place forms a scenic backdrop along SR-79 and supports dispersed recreation use, developed camping, and wilderness use. The desired condition for the Aguanga Place is that it be maintained as a natural appearing landscape, and program emphasis for the area includes the obtainment of additional conservation easements for wildlife connectivity, and maintenance of the scenic integrity of the rural backdrop and the remote and rural character of the landscape.

Palomar Mountain Place. The Palomar Mountain Place encompasses elevations ranging from less than 3,000 feet at the Lake Henshaw spillway to over 6,100 feet at the summit of Palomar Mountain (this elevation range also includes the West Fork of the San Luis Rey River). Access to the Palomar Mountain Place is provided by SR-76, and most visitors access the area from population centers to the west. The desired condition of the area is that it be maintained as a natural appearing landscape. Land Use based-program emphasis for the area includes improvement of public facilities, acquisition of ROWs to enhance access on existing Forest Service roads, and maintenance of roads to accommodate fire equipment and enhancement of remote driving opportunities.

San Dieguito – Black Mountain Place. The San Dieguito – Black Mountain Place is comprised of open space offering diverse opportunities for remote recreation use. The desired condition of the San Dieguito – Black Mountain Place is that it be maintained as a natural appearing landscape to serve as a backyard to rural communities in the area. Land use based-program emphasis for the area includes management of vegetation to enhance community protection, and preservation of wildlife and threatened, proposed endangered, candidate, and sensitive species habitat (Forest Service 2005a).

Descanso Ranger District

Sweetwater Place. The Sweetwater Place is a transition zone between the southwestern deserts and the urbanized communities along the Southern California coast, and the area encompasses the urban fringe of San Diego including the communities of Alpine, Descanso, Pine Valley, Guatay, Japatul Valley, and the Viejas Indian Reservation. Valued landscape attributes to be preserved include built elements that are unobtrusive and exhibit a consistent architectural theme and the undeveloped character of the area (Forest Service 2005a). Land Use based-program emphasis for the area includes management efforts to help ensure that activities on neighboring private lands are consistent with National Forest land management objectives,

minimization of private encumbrance of public lands, and an increased emphasis on boundary management and land adjustments.

Upper San Diego River Place. The Upper San Diego River Place is described as a remote, primitive landscape featuring rugged river canyons, waterfalls, and scenic vista within a rapidly urbanizing area to the west (Forest Service 2005a). The desired condition of the area is that it be maintained as a remote, natural appearing landscape functioning as a respite for the surrounding urban population. In addition, the valued landscape attributes to be preserved include broad, undisturbed expanses of landscape and built elements that are rustic and unobtrusive (Forest Service 2005a). Land Use based-program emphasis for the area includes maintenance of the natural-appearing setting for dispersed recreation activities, acquisition of ROW to improve access, and assessment of the landscape for additional developed campground and enhanced trail-based recreation.

Pine Creek Place. The southern portal of the PCT, Pine Creek Wilderness, Hauser Wilderness, Horsethief Trailhead (and Horsethief Canyon Trail), and recommended wilderness (Pine Creek and Hauser South) are located within the Pine Creek Place. The Forest Service seeks to maintain the Pine Creek Place as a predominately naturally evolving area that functions as a “remote, undeveloped, wilderness landscape where only ecological changes are evident” (Forest Service 2005a). Land use based-program emphasis for the area is to maintain the current character and level of development within the Pine Creek Place, promote wilderness values and managed wilderness areas in accordance with up-to-date wilderness plans, move towards the elimination of existing roads and power lines within wilderness areas, and minimize trespass with motorized vehicles (Forest Service 2005a).

Laguna Place. Located in the heart of the Laguna Mountains, the Laguna Place has a high concentration of private and public recreation uses including recreation residences, resorts, clubs, campground, picnic areas, interpretive sites, trails and trailheads, and a visitor information center (Forest Service 2005a). In addition to the Noble Canyon National Recreation Trail and the PCT, which pass through the Laguna Place and the Laguna Mountain Recreation Area, the Laguna Place supports livestock grazing operations, communication sites, and the abandoned Mount Laguna Air Force Base (Forest Service 2005a). The desired condition for the Laguna Place is a natural appearing landscape that functions as a popular year-round recreation and local scenic touring National Forest destination. Program emphasis for management of the Laguna Place includes protection of the area’s unique scenic attributes and ecosystems; maintenance of the natural appearance of the landscape; maintenance of views along the Sunrise Scenic Byway, Noble Canyon National Recreation Trail, and the PCT; and the provision of high quality recreation settings, experiences, and facilities. In addition, the management of the trail system to

minimize user and resource conflicts is also discussed and noted in the place-based program emphasis for Laguna Place (Forest Service 2005a).

Forest-Specific Design Criteria

Part 2 of the LMP contains policies specific to the CNF. Policies applicable to SDG&E's proposed project are listed below.

- **CNF S5.** Consolidate major transportation and utility corridors by co-locating facilities and/or expanding existing corridors.

While CNF S6 (place new power lines (33 kV or less), telephone lines, and television cables underground wherever possible) is applicable to distribution lines, none of the 12 kV distribution circuits included in the proposed power line replacement projects are new. Rather, the six distribution circuits would be converted from wood to steel poles, relocated, removed, and/or placed underground.

In addition to the criteria listed above, criteria related to the protection of biological resources would also be relevant to SDG&E's proposed project; however, these measures are discussed in Section D.4, Biological Resources.

Appendix B, Program Strategies and Tactics, of Part 2 of the Southern California National Forests LMP, describes detailed program strategies that the national forest may implement to achieve desired conditions and goals. Strategies address species of concern management, prevention and control of invasive species, vegetation restoration, restoration of forest health, insect and disease management, watershed function and water management, wilderness, recreation, landscape character, and non-recreation special use authorization. Applicable land use-based strategies associated with non-recreation special use authorizations are listed below. Strategies applicable to biological resources are also listed below; however, they are further discussed and analyzed in Section D.4, Biological Resources.

- **SD 1 Wilderness.** Protect and manage wilderness to improve the capability to sustain a desired range of benefits and values and so that changes in ecosystems are primarily a consequence of natural processes. Protect and manage the areas recommended for wilderness designation to maintain their wilderness values.
- **SD 3 Research Natural Areas.** Protect and manage research natural areas to maintain unmodified conditions and natural processes. Identify a sufficient range of opportunities to meet research needs. Compatible uses and management activities are allowed.

- **LM 1 Landscape Aesthetics.** Manage landscapes and built elements in order to achieve scenic integrity objectives. Also, use the best environmental design practices to harmonize changes in the landscape and to advance environmentally sustainable design solutions.
- **LM 2 Landscape Restoration.** Restore landscapes to reduce visual effects of management activities and nonconforming features. Also, prioritize landscape restoration activities in key places (Aguanga, Elsinore, Laguna, Morena, Palomar Mountain, Pine Creek, San Dieguito/Black Mountain, San Mateo, Silverado, Sweetwater, and Upper San Diego River). Integrate restoration activities with other resource restoration.
- **LM 3 Landscape Character.** Maintain the character of National Forest System lands in order to preserve their intact nature, valued attributes, and open space. Maintain the integrity of the expansive, unencumbered landscapes and traditional cultural features that provide the distinctive character of places. Plan, design, and improve infrastructure along scenic travel routes to meet scenic integrity objectives.
- **Lands 2 – Non-recreation Special Use Authorizations.** Administer existing special-use authorizations in threatened, endangered, proposed, and candidate species habitats to ensure they avoid or minimize impacts to threatened, endangered, proposed and candidate species and their habitats; cultural and scenic resources; and open space values. Require special-use authorizations to maximize opportunities to co-locate facilities and minimize the encumbrance of National Forest System land. For special-use authorization holders operating within threatened, endangered, proposed, and candidate species key and occupied habitats, develop and provide information and education on the ways to avoid and minimize effects of their activities on occupied threatened, endangered, proposed, and candidate species habitat. Use signing, barriers, or other suitable measures to protect threatened, endangered, proposed, and candidate species in key and occupied habitats within the special-use authorization areas.

Part 3 Design Criteria for the Southern California National Forests

Relevant land use and planning-related design criteria of Part 3 of the LMP (Forest Service 2005c) are identified below.

- **Aesthetics Management Standards S9.** Design management activities to meet the Scenic Integrity Objectives (SIOs) shown on the Scenic Integrity Objectives Map.
- **Aesthetics Management Standards S10.** Scenic Integrity Objectives will be met with the following exceptions:
 - Minor adjustments not to exceed a drop of one SIO level is allowable with the Forest Supervisor's approval.

- Temporary drops of more than one SIO level may be made during and immediately following project implementation providing they do not exceed three years in duration.
- **When Implementing Lands and Special-Uses Activities S42.** Include provisions for raptor safety when issuing permits for new power lines and communication sites. Also implement these guidelines for existing permits within one year in identified high-use flyways of the California condor, and within five years in other high-use raptor flyways. Coordinate with California Department of Fish and Game, U.S. Fish & Wildlife Service, and power agencies to identify the high-use flyways.
- **Applicable within Riparian Conservation Areas S47.** When designing new projects in riparian areas, apply the Five-Step Project Screening Process for Riparian Conservation Areas as described in Appendix E, Five-Step Project Screening Process for Riparian Conservation Areas. This design criterion is discussed in detail in Section D.4, Biological Resources, of this EIR/EIS.

As stated above within the Special Designation Overlays discussion, Cottonwood Creek, San Luis Rey River, and San Mateo Creek are eligible wild and scenic rivers; and therefore, Wild and Scenic River Standards S59 is applicable to SDG&E's proposed project.

- **Wild and Scenic River Standards S59:** Manage eligible wild and scenic river segments to perpetuate their free-flowing condition and proposed classifications, and protect and enhance their outstandingly remarkable values and water quality through the suitability study period and until designated or released from consideration. When management activities are proposed that may compromise the outstandingly remarkable value(s), potential classification, or free-flowing character of an eligible wild and scenic river segment, a suitability study will be completed for that eligible river segment prior to initiating activities.

Additional design criteria addressing fish and wildlife would also be relevant and applicable to SDG&E's proposed project. Please refer to Section D.4, Biological Resources, for a discussion of design criteria applicable to biological resources.

Southern California National Forests LMP Amendment

The Forest Service is currently developing an amendment to the 2005 Southern California National Forests LMP. In addition to revising land use zone allocations for select IRAs within the Angeles, Cleveland, Los Padres, and San Bernardino national forests), the LMP Amendment would also modify existing LMP monitoring protocols. The need for an amendment was prompted by a January 2011 Settlement Agreement approved for *California Resources Agency*,

et al. v. United States Department of Agriculture, and Center for Biological Diversity, et al. v. United States Department of Agriculture. Monitoring requirement updates would pertain to forest health, riparian condition, and biological resource condition, and regarding revisions to existing land use allocations, the LMP Amendment identifies 80,000 acres of Recommended Wilderness in four new recommended wilderness areas in the Southern California National Forests (Forest Service 2013).

While the proposed LMP Amendment would not establish new land use zones within the CNF, it would increase the distribution of more restrictive land use zones in IRAs, more specifically, Back County Non-Motorized and Recommended Wilderness land use zone allocations in the Coldwater, Ladd, and Trabuco IRAs in south Orange County and southwestern Riverside County, and in the Barker Valley, Caliente, Upper San Diego River, Cedar Creek, Eagle Peak, No Name, and Sill Hill IRAs in San Diego County. Operations and maintenance activities proposed for authorization under the MSUP may occur in the Coldwater, Ladd, Trabuco, and Caliente IRAs; however, the proposed power line replacement projects do not traverse these IRAs, and therefore, the land use reallocations proposed in these areas by the LMP amendment are not discussed. The eastern portion of the existing TL682 alignment between East Grade Road and Lake Henshaw is located near the Barker Valley IRA; the existing TL626 alignment spans the Cedar Creek, No Name, and Sill Hill IRAs; and the C79 alignment spans the Sill Hill IRA. TL626 is also located near the Upper San Diego River and Eagle Peak IRAs. Nearly all CNF lands within the aforementioned IRAs would be redesignated Recommended Wilderness as a result of the LMP Amendment.

In addition to the Recommended Wilderness land use zone redesignations that would affect select IRA lands traversed by segments of the TL626 and C79, the proposed LMP Amendment would alter the distribution of other land use zones in CNF IRAs. Table D.10-7 lists the existing distribution of land use zones in the Upper San Diego River, Cedar Creek, Eagle Peak, No Name, and Sill Hill IRAs of the CNF, and the distribution of land use zones proposed in the LMP Amendment.

Table D.10-7
Existing and Proposed Land Use Zone Distribution in
Select IRAs of the Cleveland National Forest

Land Use Zone	Existing Acres	Proposed Acres (per LMP Amendment)
Back County	6,072	1,775
Back Country Motorized Use Restricted	5,475	3,226
Back Country Non-motorized	68,057	34,772
Critical Biological	506	506
Developed Area Interface	2,995	1,317
Recommended Wilderness	0	41,511

Table D.10-7
Existing and Proposed Land Use Zone Distribution in
Select IRAs of the Cleveland National Forest

Land Use Zone	Existing Acres	Proposed Acres (per LMP Amendment)
Existing Wilderness	0	0
Total Acres¹	83,106	83,106

Source: Forest Service 2013

Note: Total acres is total acreage of select IRAs in the CNF. Select IRAs include the Upper San Diego River, Cedar Creek, Eagle Peak, No Name, and Sill Hill IRAs.

Forest Service Manual 2300 – Recreation, Wilderness and Related Resource Management

Chapter 2320, Wilderness Management, of Forest Service Manual 2300 contains direction for the management of Forest Service lands designated by Congress as units in the National Wilderness Preservation System. Per Section 2323.1, Management of Recreation, the Forest Service is tasked with the provision of opportunities for public use, enjoyment, and understanding of the wilderness, as well as opportunities for solitude or a primitive and unconfined type of recreation (Forest Service 2006). Regarding improvements and nonconforming facilities and activities in wilderness (Section 2323.13f), trails that fit the natural landscape “as unobtrusively as possible” and bridges designed to minimize the impact on wilderness and displaying minimal size and complexity are identified as acceptable transportation systems in wilderness (Forest Service 2006). Further, Section 2324.3 Management of Structures and Improvements, directs the Forest Service to “limit structures and improvements for administrative purposes or under special use permit to those actually needed for management, protection, and use of wilderness for the purpose for which wilderness was established” (Forest Service 2006).

Region 5 Supplement to Forest Service Manual 2700 – Special Uses Supplement Number 2700-2011-1

Chapter 2720, Special Uses Management, of the Region 5 Supplement to Forest Service Manual 2700, contains direction for power lines on National Forests in the Pacific Southwest Region in order to eliminate or mitigate long-term conflicts between power lines and the management of National Forest lands and resources and to eliminate identified fire and safety hazards. The following direction is provided in Chapter 2720 for power lines up to and including 35 kV and power lines over 35 kV:

- a. Power Lines Up To and Including 35 kV. Place all new power line installations underground, except where the environmental analysis indicates that aerial construction provides better protection for National Forest resource and environmental values. The authorizing officer shall require undergrounding of existing aerial power line

installations, especially when the holder proposes those lines for upgrading, replacement, or reconstruction, except where the environmental analysis clearly indicates that aerial construction provides better protection for National Forest resource and environmental values.

b. Power Lines Over 35 kV. Forest Service officers may authorize aerial construction, except for those areas where the environmental analysis clearly indicates unacceptable effects on National Forest resource and environmental values. While it is technically feasible to underground electric power lines over 35 kV, construction costs and operational problems increase substantially. Consider undergrounding only after a thorough assessment of the situation by the authorizing officer.

Wilderness Act of 1964

The Wilderness Act of 1964 (16 U.S.C. 1131 et seq.) established a National Wilderness Preservation System that sought to ensure that future development and an increasing population did not hamper the preservation and protection of lands in their natural state. The Wilderness Act provides the definition of a federal wilderness area.

According to Section 2(c) of the Act, wilderness is defined as:

A wilderness area, in contrast to those areas where a man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. A wilderness area is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of lands or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

In addition, Section 4(c) of the Wilderness Act prohibits certain uses (including commercial enterprises, permanent or temporary roads, motor vehicles, motorized equipment, motorboats, landing of aircraft, any form of mechanical transport, and structures or installations) from occurring on federally designated wilderness areas (16 U.S.C. 1131 et seq.). An act of Congress is required to formally designate an area recommended for preservation and protection as

wilderness. In the event that Congress decides not to formally designate a recommended area as wilderness, the area is managed consistent with the Back Country Non-Motorized land use zone.

Within the CNF, federally designated wilderness areas are delineated by the Existing Wilderness land use zone and include the Pine Creek Wilderness and Hauser Wilderness in the Descanso Ranger District, the Agua Tibia Wilderness in the Palomar Ranger District, and the San Mateo Canyon Wilderness in the Trabuco Ranger District. National Forest lands designated Recommended Wilderness are managed similar to existing wilderness such that the identified wilderness attributes of the area are retained until Congress passes legislation, or the area is released from consideration. Three areas of Recommended Wilderness are located in the CNF: Cutca Valley (8,619 acres) near the existing Agua Tibia Wilderness, Pine Creek (430 acres) near the Pine Creek Wilderness, and Hauser South (2,302 acres) near the Hauser Wilderness. Also, as discussed above, additional forest service lands would be redesignated Recommended Wilderness upon approval and adoption of the proposed LMP Amendment.

Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1701 et seq.) directs public land managers to use and observe the principles of multiple use and sustained yield when developing and revising land use plans. Per Section 103(c), multiple use “means the management of public land and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the America public.” Sustained yield refers to the achievement and maintenance in perpetuity of a regular periodic output of the renewable resources of public lands consistent with multiple use.

Title V, Rights-of-Way, of FLPMA authorizes the Secretary of the Interior, with respect to public lands, and the Secretary of Agriculture, with respect to lands within the National Forest System (with the exception of designated wilderness), to grant, issue, or renew ROWs “over, under or through” lands for systems for the generation, transmission, and distribution of electric energy (43 U.S.C. 1701 et seq.). Further, ROWs and permits granted “shall be limited to a reasonable term” with consideration given to facility cost, useful life of facilities, and the public purpose the facility serves (43 U.S.C. 1701 et seq.). Also, FLPMA authorizes the Secretary with jurisdiction over the project in question to require ROW applicants to submit a plan of construction, operation, and rehabilitation for the ROW if significant environmental impacts are anticipated.

Wild and Scenic Rivers Act of 1968

The Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.) preserves select rivers or sections or rivers in their free-flowing condition in order to protect water quality of such rivers and achieve “vital” national conservation measures. The 1968 act established a National Wild

and Scenic Rivers System through designation of the initial components of the systems and determined methods by which additional rivers or sections of rivers could be added. A river system may be listed on the Nationwide Rivers Inventory (an inventory of designated wild, scenic, and recreational rivers) if it is free-flowing and has one or more outstanding remarkable values such as exceptional scenery or recreation opportunities, unusual geological formations, rare plant and animal life, and cultural or historical artifacts judged to be of more than local or regional significance (16 U.S.C Section 1271). The following is a general summary of wild, scenic, and recreational river areas as provided by 16 U.S.C Section 1273:

- **Wild river areas:** Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- **Scenic river areas:** Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- **Recreational river areas:** Those rivers or sections of river that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Designated rivers are required to prepare and implement a Comprehensive River Management Plan and a boundary declaration within a designated time frame.

Approximately 12 miles of Cottonwood Creek in the Descanso Range District, and 3.3 miles of the San Luis Rey River (Main) in the Palomar Ranger District are eligible for designation as recreational rivers. Approximately 5 miles of San Mateo Creek in the Trabuco Ranger District is eligible for designation as a wild river (Forest Service 2005a).

BLM South Coast Resource Management Plan

As stated in Section D.10-1, the South Coast RMP and the Draft RMP revision are the applicable planning documents for BLM lands in the project study area. However, the RMP does not apply land use zones to all public lands with the planning area boundary. Rather, specific land use, biological, and recreational designations such as grazing allotments, habitat management areas, and wilderness study areas are used to identify the presence of important environmental resources. Within SDG&E's proposed project area, public lands in the vicinity of Hauser Mountain and McAlmond Canyon are managed as a wildlife habitat management area. Further, grazing allotments on public lands near Potrero, Hauser Mountain, Cameron, and Clover Flat also occur within SDG&E's proposed project area.

BLM South Coast Resource Management Plan Draft Revision

The BLM is currently in the process of preparing a draft revision to the existing South Coast RMP. The Draft RMP revision identifies the Hauser Mountain Wilderness Study Area (WSA) which coincides with contiguous BLM lands in the Hauser Mountain area located south of the existing TL6923 and 500 kV Sunrise Powerlink alignments. While the Hauser Mountain WSA was initially identified in a 1987 wilderness character inventory study conducted by the BLM (preparation and maintenance of public land inventories is required by Section 201(a) of FLPMA), the area is not discussed in the 1994 RMP. According to Section 603(a) of FLPMA (43 U.S.C. 1701 et seq.), WSAs encompass roadless areas of 5,000 acres or more and roadless islands of public lands identified as displaying “wilderness characteristics” and thus suitable for inclusion in the National Wilderness Preservation System. Despite its designation as a WSA in 1987, the Hauser Mountain WSA has yet to obtain formal wilderness designation from Congress. In the interim (i.e., until the federal government makes a formal decision regarding future designation of the WSA) the area will be managed in a manner that maintains its wilderness characteristics. The draft RMP revision also maintains the existing Potrero and Hauser Mountain grazing allotments (BLM 2011).

Comprehensive Management Plan for the Pacific Crest National Scenic Trail

The purpose of the Comprehensive Management Plan for the PCT is to provide overall guidance and objectives for development and management of the trail. The comprehensive plan is intended to be general, and more specific planning is accomplished at the BLM, National Park Service, and National Forest level in regards to the specific issues and opportunities for portions of the trail located in those jurisdictions. Within the comprehensive plan, general design criteria for the trail is provided, but guidelines for land uses adjacent to the trails are not provided. However, the plan does contain several Memorandum of Agreements (MOAs) between the Forest Service, the U.S. Department of Agriculture, the National Park Service, and the U.S. Department of the Interior concerning the PCT that establishes an agreement between all responsible parties to “afford each other opportunities to review and comment on development plans and programs affecting the trail” (Forest Service 1982). In addition, the agreement encourages local governments with authority to zone private lands adjacent to the trail ROWs to control the uses of such properties such that trail-adjacent private development will harmonize with the purpose of the trail (Forest Service 1982).

36 Code of Federal Regulations (CFR) 261.20 Pacific Crest National Scenic Trail

Use of motorized vehicles on the PCT without a special-use authorization is prohibited by 36 CFR 261.20.

D.10.2.2 State Laws and Regulations

California Wilderness Preservation System

Established by California Public Resources Code, Chapter 5093.30 (also known as the California Wilderness Act), the California Wilderness Preservation System pertains to state-owned lands designated by the legislature as “wilderness areas” or portions of the state park system designated as “state wilderness” by the State Park and Recreation Commission. The intent of the state wilderness preservation system is similar to that of the national wilderness preservation system: to manage wilderness areas and state wilderness for the enjoyment of the public while also preserving and protecting these areas. Management of these areas is subject to the requirements set forth within Sections 5093.30 to 5093.40 and 5019.50 to 5019.80 of the California Public Resources Code. The following is a discussion of the applicable requirements established within these sections.

The definitions of wilderness areas and state wilderness are established in California Public Resources Code Sections 5093.33(c) and 5019.68, respectively. The definition of these areas are similar except that State Park and Recreation Commission-designated state wilderness areas permit structures to be located on these lands provided that the structures existed prior to the designation of the area as a state wilderness, and provided that the State Park and Recreation Commission has determined that the structure(s) may be maintained and used in a manner compatible with the preservation of the wilderness environment. The definition of wilderness areas is consistent with that of wilderness as defined in the Wilderness Act of 1964 (see Section D.10.2.2), and the definition of state wilderness is provided below.

State wilderness, per Section 5019.68 of the California Public Resources Code, is defined as:

Areas where the earth and its community of life are untrammelled by man and where man himself is a visitor and does not remain. A state wilderness is further defined to mean an area of relatively undeveloped state-owned or leased land which has retained its primeval character and influence or has been substantially restored to a near-natural appearance, without permanent improvements or human habitat, other than semi-improved campgrounds, or structures which existed at the time of classification of the area as a state wilderness and which the State Park and Recreation Commission has determined may be maintained and used in a manner compatible with the preservation of the wilderness environment, or primitive latrines, which is protected and managed to preserve its natural conditions.

Both wilderness areas and state wilderness must have outstanding opportunities for solitude and recreation, contain at least 5,000 acres of land, and contain ecological, geological, or other resources of scientific or scenic value.

Pursuant to California Public Resources Code, Section 5093.36(a), the State Parks and Recreation Commission is responsible for “preserving the wilderness character of an area” and ensuring that “wilderness areas are devoted to the purposes of recreational, scenic, scientific, educational, conservation, and historic use.” In addition, nonconforming uses on State Park Lands are typically not permitted unless approved by the State Park and Recreation Commission. As stated in California Public Resources Code 5093.36 (b), “commercial enterprises, temporary or permanent roads, structures or installations, motor vehicles, motorized equipment, landing or hovering of aircraft, flying of aircraft lower than 2,000 feet aboveground, and other forms of mechanical transport are not permitted on State Park Lands unless it is necessary in an emergency involving the health and safety of persons within the wilderness area.”

Cuyamaca Rancho State Park General Plan

The intent of the 1986 Cuyamaca Rancho State Park General Plan is to “guide the Department of Parks and Recreation in protection of the [park’s] natural and cultural resources and in development of recreational facilities” (California Department of Parks and Recreation 1986). The plan contains five elements, three of which are particularly relevant in regards to management of land uses within the park: the Resources Element and the Land Use and Facilities Element. The Resources Element identifies the natural, cultural, aesthetic, and recreational resources of the park and sets management policies for the protection and use of these resources, and the Land Use and Facilities Element identifies current and proposed land uses (California State Parks 1986). An additional element, the Operations Element, describes the operational guidelines for existing facilities within the park; however, this element is more concerned with visitor-serving facilities and optimized use of the park by a broad segment of the population.

According to the Resources Element summary of aesthetic resources, the Department of Parks and Recreation supports an overall goal of placing all overhead utility lines serving park facilities underground and for all overhead utility lines not serving necessary park facilities to be rerouted around the park (California State Parks 1986). In addition, the General Plan also supports the removal of communication equipment and other conspicuous man-made features from all prominent peaks in the park. Regarding the Land Use and Facilities Element, the General Plan notes that of the Park’s more than 24,600 acres, 13,200 acres (54%) are classified as wilderness; 2,560 acres (10%) are classified as cultural preserves; and remaining lands are used as scenic open space (California Department of Parks and Recreation 1986).

Due to alterations to the park landscape resulting from the 2003 Cedar Fire, California State Parks is currently holding open meetings and conducting public outreach in order to draft a new long-range plan for Cuyamaca Rancho State Park. The new plan is anticipated to address reconstruction and relocation of damaged or destroyed facilities, identification of new cultural sites uncovered during the 2003 fire, and possible realignment of the park's trails to "better fit the changed landscape" (Schmidt 2012). According to California State Parks, a Preliminary Draft General Plan and Draft EIR will be available in spring 2014, and the Final General Plan and EIR will be available in fall 2014 (California Department of Parks and Recreation 2013).

D.10.2.3 Regional Policies, Plans, and Regulations

Regional/local policies, plans, and regulations are summarized for the proposed power line replacement projects in Appendix LU-1a. Existing SDG&E electric facilities (power lines, distribution circuits, access roads and other facilities) to be covered under the proposed MSUP are located within the Trabuco, Palomar and Descanso ranger districts which encompass portions of southeastern Orange County, southwestern Riverside County, and San Diego County. All of the proposed power line replacement projects discussed in detail in this document are located within and surround the Palomar and Descanso ranger districts in San Diego County. As such, policies, plans, and regulations of Orange, Riverside and San Diego counties are considered in Appendix LU-1a.

It should however, be noted that pursuant to Article 12, Section 8, of the California Constitution, SDG&E's proposed project is not subject to local plans, policies, or regulations. The CPUC and Forest Service have independent jurisdiction and approval authority for the project; the CPUC is the lead agency under California law and the Forest Service is the lead federal agency. However, state agencies such as the CPUC are required to consider local land use policies and regulations when making decisions. Therefore, local plans and policies including the General Plans of the County of San Diego, County of Riverside, and County of Orange, are considered and included in Appendix LU-1a for information purposes in order to assist in determining local land use compatibility.

D.10.3 Environmental Effects

D.10.3.1 Definition and Use of CEQA Significance Criteria/ Indicators under NEPA

The CEQA criteria and guidelines described below are also used as indicators of adverse effects under NEPA. The following land use significance criteria were derived from previous environmental impacts assessments and from Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Under CEQA, land use impacts would be significant if the project would:

- Temporarily disturb land uses at or near project components.
- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

D.10.3.2 Applicant Proposed Measures

The applicant has not proposed measures to reduce the potential land use impacts of SDG&E’s proposed project.

D.10.3.3 Direct and Indirect Effects

Impact LU-1 Disturb land uses at or near project components due to construction

Given the proximity of existing power lines and distribution circuits to sensitive land uses including rural residential, recreation, and wilderness, construction activities associated with the proposed power line replacement projects could temporarily disturb land uses. For purposes of this analysis, it is assumed that construction activities occurring within 1,000 feet of a sensitive land use could result in potentially significant impacts associated with land use conflicts, potential access blockage, and indirect effects including the generation of dust and noise. For those residences and other sensitive land uses greater than 1,000 feet from the proposed route and construction activities, construction-related impacts would not be adverse under NEPA, and under CEQA would be considered less than significant (Class III) due to their distance from SDG&E’s proposed project and the attenuation of impacts that distance would afford. Note, impacts to recreational resources are further discussed in Section D.13 of this EIR/EIS.

Table D.10-8 lists the impacts and classification of the impacts under CEQA and NEPA identified for each component of the proposed power line replacement projects.

Table D.10-8
Sensitive Land Uses within 1,000 Feet of Project Components¹

Project Component	Sensitive Land Use	Description of Impact	Significance Determination
TL682	Rural Residential and Recreation	TL 682 passes within 1,000 feet of approximately 96 residences and within 1,000 feet of the Amago Sports Park, the La Jolla Indian Campground, and the San Luis Rey Picnic Grounds. Construction activities including the use of helicopters would temporarily disturb these sensitive land uses.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.10 LAND USE AND PLANNING**

**Table D.10-8
Sensitive Land Uses within 1,000 Feet of Project Components¹**

Project Component	Sensitive Land Use	Description of Impact	Significance Determination
TL626	Rural Residential Recreation	TL626 passes within 1,000 feet of approximately 66 residences and within 1,000 feet of the Inaja Memorial Picnic Area and National Recreation Trail, the Stallion Oaks Campground, and the California Riding and Hiking Trail.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
TL625	Rural Residential and Recreation	TL625 passes within 1,000 feet of approximately 147 residences and within 1,000 feet of the Loveland Reservoir access trails and the California Riding and Hiking Trail.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
TL629	Rural Residential, Recreation, MSCP Preserve, Elementary Schools	TL629 passes within 1,000 feet of approximately 461 residences and within approximately 1,000 feet of the Pine Creek Trailhead near Old Highway 80, Pine Valley Regional Park, Pine Creek MSCP Preserve, the Pacific Crest National Scenic Trail, and Boulder Oaks Campground. TL629 also passes within 1,000 feet of Descanso Elementary School (intersection of Tanglewood Drive and Viejas Boulevard) and Pine Valley Elementary School.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
TL6923	Rural Residential and Recreation	TL6923 passes within 1,000 feet of approximately 16 residences and spans the Pacific Crest National Scenic Trail south of Hauser Canyon.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
C79	Research Natural Area, Recreation and Wilderness	C79 would be removed from Forest Service lands through the King Creek RNA and from the west-facing slopes of Cuyamaca Peak. Within Cuyamaca Rancho State Park, the underground alignment of C79 follows Lookout Road and passes within 1,000 feet of Cuyamaca Mountains State Wilderness and the Paso Picacho Campground. Lookout Road is used by hikers and cyclists to access Cuyamaca Peak.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
C78	Rural Residential	C78 passes within 1,000 feet of approximately 6 residences located on the Viejas Indian Reservation.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
C157	Wilderness and Rural Residential	C157 passes within 1,000 feet of an existing residence and spans the Pine Creek Wilderness and the Hauser Wilderness (designated National Forest Wilderness).	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
C442	Rural Residential and Recreation	C442 passes within 1,000 feet of approximately 39 residences and within 1,000 feet of the Noble Canyon Trailhead and Trail and the Bear Valley OHV Trailhead and Trail.	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)
C440	Rural Residential and Recreation	C440 passes within 1,000 feet of approximately 158 residences and within 1,000 feet of recreation areas/facilities/trails in the Laguna Mountain Recreation Area including the Burnt Rancheria Campground, the Pacific Crest National Scenic Trail, the Desert View Trail and Picnic Area, and the Laguna	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)

Table D.10-8
Sensitive Land Uses within 1,000 Feet of Project Components¹

Project Component	Sensitive Land Use	Description of Impact	Significance Determination
		Campground.	
C449	Rural Residential, Mountain Empire High School, and Recreation	C449 passes within 1,000 feet of approximately 2 residences, Mountain Empire High School, Pacific Crest National Scenic Trail, Lake Morena County Park, and Boulder Oaks Campground	Adverse under NEPA and less than significant with mitigation under CEQA (Class II)

Note:

¹ The 1,000-foot distance referenced in this table is used to identify sensitive land uses that may be potentially impacted by land use conflicts, potential access blockage, and indirect effects including the generation of dust and noise during construction activities. Please see Section D.13, Recreation, for specific distances between project components and identified recreation facilities.

As listed in Table D.10-8, power lines proposed to be replaced traverse or border terrain supporting sensitive land uses including rural residences, schools, federally designated wilderness, and recreational areas including trails, parks, campgrounds, and picnic areas. More specifically, these power lines are located within 1,000 feet of approximately 992 residences, 3 schools, 1 designated state wilderness and 2 federally designated wilderness areas, and over 30 recreation areas, facilities, and trails. Potential impacts during construction of the power line replacement projects could include temporary use conflicts between light-duty vehicles belonging to residents and heavy-duty construction vehicles and intermittent restriction of access caused by construction activity (i.e., trenching) and/or the presence of heavy construction equipment and vehicles on project area roadways. Further, construction of SDG&E's proposed project may also result in reduced or degraded access to residential, recreational, and/or wilderness lands due to increased traffic volumes on construction access routes and local roads and noise and air quality disturbances generated by the constant movement of materials and equipment to and from construction staging areas and power line and distribution circuit alignment work areas. Absent mitigation, temporary impacts to sensitive land uses located within 1,000 feet of a power line or distribution circuit alignment are considered potentially significant under CEQA and adverse under NEPA. However, with implementation of Mitigation Measure (MM) MM LU-1, temporary use conflicts and other disturbances of land uses at or near project components would be mitigated under NEPA and would be less than significant with mitigation under CEQA (Class II).

MM LU-1 Prepare Construction Notification Plan. Forty-five (45) days prior to construction, the project applicant shall prepare and submit a Construction Notification Plan to the appropriate land use jurisdiction agency for approval. The plan shall identify the procedures that will be used to inform private landowners, schools, and agencies with authority over recreational areas/facilities of the location and duration of construction, identify approvals that

are needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The plan shall address at a minimum the following components:

- **Public notice mailer.** A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. The project applicant shall mail the notice to all residents or property owners within 1,000 feet of project components and to all land use agencies having jurisdiction over a recreation area/facility located within 1,000 feet of a project component. If construction delays of more than 7 days occur, an additional notice shall be prepared and distributed. To facilitate access to properties obstructed by construction activities, the project applicant shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.
- **Newspaper/Website advertisements.** Fifteen (15) days prior to construction of any project component, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins, and on the relevant websites of jurisdictional agencies. The Forest Supervisor, District Rangers, and Public Affairs Officer of the Cleveland National Forest shall also be notified. The notices shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of noticing shall occur and shall discuss the status and schedule of construction.
- **Public venue notices.** Thirty (30) days prior to construction, notice of construction shall be posted at public venues, such as libraries, community notification boards, post offices, rest stops, community centers, trailheads, informational kiosks, and other public venues applicable to the power line and distribution circuits under construction, such as at trailheads for trails traversed by the electrical infrastructure in question, to inform potentially affected parties of the purpose and schedule of construction activities.
- **Public liaison person and toll-free information hotline.** The project applicant shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be

included in notices distributed to the public. The project applicant shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.

Impact LU-2 Divide an established community or disrupt land uses at or near project components

The proposed power line replacement projects would replace existing wood poles with new weathered steel poles, in addition to minor relocation, removal, and undergrounding, generally within the same ROW alignment as the existing power lines. The continued operations and maintenance of existing electric facilities within the CNF to be covered under the MSUP, along with approval of the proposed power line replacement projects, would not introduce a new land use or establish a permanent barrier or obstacle between uses nor create a physical division or separation of use when compared to the existing conditions. Furthermore, support poles and electricity lines are currently present and visible in the landscape and would continue to be so upon implementation of SDG&E’s proposed project. Travel within and outside of the project area would not be physically impeded by the presence of structures or underground trenches, and a physical division would not be created by these structures/features. As such, no land use impacts relating to the division of an established community would occur.

Impact LU-3 Conflict with applicable land use plans, policies, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect

SDG&E’s proposed project’s consistency with federal and state plans, policies, and regulations is provided in Appendix LU-1b. Table D.10-9 lists the power line replacement projects, applicable plans and regulations, and a consistency determination summary. Where a potential conflict with a plan was identified in Appendix LU-1b, a focused discussion is provided below after Table D.10-9.

Table D.10-9
Plans and Regulations Consistency Analysis Summary

Project	Plans and Regulations	Consistency Analysis Summary
All	Forest Service Strategic Plan	Consistent
TL682	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forests Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Wild and Scenic Rivers Act of 1968	Consistent

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.10 LAND USE AND PLANNING**

**Table D.10-9
Plans and Regulations Consistency Analysis Summary**

Project	Plans and Regulations	Consistency Analysis Summary
	Federal Land Policy Management Act	Consistent
	Regional Plans and Regulations	Consistent
TL626	Southern California National Forests Land Management Plan	Inconsistent
	Southern California National Forest Land Management Plan Amendment ¹	Inconsistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Federal Land Policy Management Act	Consistent
	Regional Plans and Regulations	Consistent
TL625	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forest Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Federal Land Policy Management Act	Consistent
	BLM South Coast Resource Management Plan	Consistent
	BLM South Coast Resource Management Plan Draft Revision	Consistent
	Regional Plans and Regulations	Inconsistent
TL629	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forests Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Wild and Scenic Rivers Act of 1968	Consistent
	Federal Land Policy Management Act	Consistent
	CFR 36 Section 261.20 Pacific Crest National Scenic Trail and Comprehensive Management Plan for the Pacific Crest National Scenic Trail	Consistent
	BLM South Coast Resource Management Plan	Consistent
	South Coast Resource Management Plan Draft Revision	Consistent
	Regional Plans and Regulations	Consistent
TL6923	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forests Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Federal Land Policy and Management Act	Consistent
	CFR 36 Section 261.20 Pacific Crest National Scenic Trail and Comprehensive Management Plan for the Pacific Crest National Scenic Trail	Consistent
	Federal Land Management Policy Act	Consistent
	South Coast Resource Management Plan	Consistent
	South Coast Resource Management Plan Draft Revision	Consistent
	Regional Plans and Regulations	Consistent
C79	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forests Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Wilderness Act of 1964	Consistent
	Federal Land Management Policy Act	Consistent

**Table D.10-9
Plans and Regulations Consistency Analysis Summary**

Project	Plans and Regulations	Consistency Analysis Summary
	California Wilderness Preservation System/California Wilderness Act	Consistent
	Cuyamaca Rancho State Park General Plan	Consistent
	Cuyamaca Rancho State Park Draft General Plan Revision	Consistent
C78	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forest Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Regional Plans and Regulations	Consistent
C157	Southern California National Forests Land Management Plan	Inconsistent
	Southern California National Forests Land Management Plan Amendment	Inconsistent
	Forest Service Manual 2300 – Recreation, Wilderness and Related Resource Management Chapter 2320, Wilderness Management)	Inconsistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Wilderness Act of 1964	Inconsistent
	Federal Land Policy Management Act	Consistent
C442	Southern California National Forests Land Management Plan	Inconsistent
	Southern California National Forests Land Management Plan Amendment	Inconsistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Federal Land Policy Management Act	Consistent
	Regional Plans and Regulations	Consistent
C440	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forests Land Management Plan Amendment	Consistent
	Forest Service Manual 2700– Chapter 2720	Consistent
	Federal Land Policy Management Act	Consistent
	Regional Plans and Regulations	Consistent
C449	Southern California National Forests Land Management Plan	Consistent
	Southern California National Forest Land Management Plan Amendment	Consistent
	Forest Service Manual 2700 – Chapter 2720	Consistent
	Federal Land Policy Management Act	Consistent
	Wild and Scenic Rivers Act of 1968	Consistent
	Regional Plans and Regulations	Consistent

Note: 1. Forest Service Manual 2300 (as it relates to wilderness management) and the Wilderness Act of 1964 would be applicable to TL626 pending approval and adoption of the Southern California National Forests LMP Amendment.

Existing Plans and Policies

TL626

An approximate 0.75-mile segment of the existing and SDG&E-proposed TL626 alignment traverses Forest Service lands zoned Back Country Non-Motorized. This portion of TL626 is supported by accompanying access road and as such, is considered a Developed Facility by the

Forest Service. As stated in Table D.10-6, Developed Facilities are not considered a suitable activity/use within the Back Country Non-Motorized land use zone. This ongoing conflict with the CNF LMP land use zones would continue under SDG&E's proposed project and is considered a conflict under NEPA and a significant impact under CEQA. Approval of a project specific plan amendment, as described by MM LU-2 would provide an exception for SDG&E's proposed project for TL626.

MM LU-2 In order to allow for existing and proposed facilities, the Forest Service will approve a project-specific CNF Land Management Plan Amendment contemporaneously with the decision to authorize the MSUP and pole replacement project. The project-specific plan amendment would amend the Land Management Plan to allow project-specific exemptions for inconsistencies with the CNF Land Management Plan land use zones and standards.

With implementation of MM LU-2, portions of TL626 considered being Developed Facilities by the Forest Service within the Back Country Non-Motorized land use zone would be allowed and therefore conflicts with the CNF LMP would be addressed as required by the National Forest Management Act and resolved under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II). While MM LU-2 would provide an exception for the project and allow authorization of the project, it does not reduce the project effects that caused the conflict with the plan. Those physical effects are analyzed under impacts to the existing and planned land uses (Impacts LU-1 and LU-2) and in other land use-related topics addressed in this EIR/EIS. Aesthetic/visual resource issues are described in Section D.2, biological resources are addressed in Section D.4, hydrology and erosion issues are addressed in Section D.9, noise is addressed in Section D.11, and recreation issues are addressed in Section D.13 of this EIR/EIS.

C442

An approximate 1.8-mile segment of the existing and SDG&E-proposed C442 alignment and accompanying access road traverses the Back Country Non-Motorized land use zone. This segment is considered a Developed Facility by the Forest Service and therefore, is not a suitable use/activity within the Back Country Non-Motorized land use zone. This ongoing conflict with the CNF LMP land use zones would continue under SDG&E's proposed project for C442 and is considered a conflict under NEPA and a significant impact under CEQA. With implementation of MM LU-2, inconsistencies with the Back Country Non-Motorized land use zone of the CNF LMP would be allowed and therefore conflicts with the CNF LMP would be addressed as required by the National Forest Management Act and resolved under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II). While MM LU-2 would provide an exception for the project and allow authorization of the project, it does not reduce the project effects that caused the conflict with the plan. Those physical effects are analyzed under

impacts to the existing and planned land uses (Impacts LU-1 and LU-2) and in other land use-related topics addressed in this EIR/EIS. Aesthetic/visual resource issues are described in Section D.2, biological resources are addressed in Section D.4, hydrology and erosion issues are addressed in Section D.9, noise is addressed in Section D.11, and recreation issues are addressed in Section D.13 of this EIR/EIS.

C157

The existing alignment of C157 is approximately 3.5 miles in length and as shown in Figure B-5 is partially located within the Congressionally designated Pine Creek Wilderness area and the Hauser Wilderness area. More specifically, approximately 0.1 mile of the existing alignment (2 poles) is located in the Pine Creek Wilderness area, and 0.5 mile of the alignment (7 poles) is located within the Hauser Wilderness area. SDG&E's proposed project for C157 would replace 9 existing wood poles with 10 new steel poles within Congressionally designated wilderness and the established Wilderness land use zone of the CNF LMP. The Wilderness land use zone is the most restrictive in terms of suitable uses of the seven land uses zones applied to lands in the CNF. As shown in Table D.10-6, (Non-Recreational) Special Use: Low Intensity Land Uses are permitted in the Wilderness land use zone (by exception), however, Developed Facilities are not suitable uses in the Wilderness land use zone. Also, pursuant to Section 4(c) of the Wilderness Act of 1964, structures and installations are prohibited in wilderness. As such, reauthorization of C157 through federally designated wilderness and replacement pole activities within the wilderness land use zone would conflict with the regulation of suitable uses within the wilderness land use zone as established in Table 2.2.3 of the Part 2 of the Southern California National Forests LMP. As such, impacts associated with C157 to designated wilderness lands would be adverse under NEPA and significant under CEQA. Because SDG&E's proposed project for C157 would affect lands afforded legal protections under the Wilderness Act of 1964 and would require an act of Congress to allow authorization, which cannot now be known to be feasible, it has been determined for purposes of the analysis conducted in this EIR/EIS, that no feasible mitigation measure is available to address the conflict. Therefore, while SDG&E is free to lobby Congress for special authority or exemption to allow their proposed project for C157 to remain in designated wilderness, Impact LU-3 associated with SDG&E's proposed project for C157 is considered adverse and unavoidable under NEPA and significant and unmitigable under CEQA (Class I).

Power Line Replacement Projects (Forest Service Manual 2700 – Chapter 2720)

Although Forest Service policy and plan direction favors undergrounding new and existing electric lines under 12 kV, an exception is provided where resource impacts would be greater than overhead construction. As described in Section C.5.7 of this EIR/EIS, the greater impact of undergrounding all existing electric transmission lines and circuits would not be consistent with agency policy and

therefore, the proposed power line replacement projects would be consistent with policy direction and guidance established in Forest Service Manual 2700 – Chapter 2720.

Regional Plans and Regulations

TL625

TL625 crosses Loveland Reservoir waters, and support poles are located in relatively close proximity to the northern shoreline of the reservoir near the Forest Service parking area off Japatul Lane. Per SDG&E Safety Standard G8367 Pesticide Management, SDG&E may use one of two insecticides (Hit Squad Industrial Insecticide and Blast ‘Em) and may use an assortment of herbicides during pole brushing, cut stump treatments associated with tree removals, or other operations and maintenance activities where vegetation removal is necessary for fire safety reasons (see Section B, Project Description, of this EIR/EIS for full list). While application of herbicides would occur under the direction of a professional pesticide applicator with either a Qualified Applicator License or an Agricultural Pest Control Adviser License in the State of California, potential use of herbicides along the TL625 alignment near Loveland Reservoir and the Sweetwater River would conflict with Conservation Policy 21 of the Alpine Community Plan. Conservation Policy 21 prohibits the use of herbicides in the Alpine Planning Area, particularly in proximity of the Loveland Reservoir and its tributaries. See Section D.9, Hydrology and Water Quality, of this EIR/EIS for further discussion of the use of herbicides and pesticides and associated impacts.

Pending Plans and Regulations

TL626

The proposed project would entail wood-to-steel replacement of existing TL626 poles located in the Cedar Creek and Sill Hill IRAs. As shown in Figure D.10-2, under the proposed Southern California National Forests LMP Amendment, existing Back Country and Back Country Non-motorized land use zones associated with these areas would be re-designated as Recommended Wilderness and approximately 1.7 miles of the SDG&E’s proposed TL626 alignment would be located in the Recommended Wilderness land use zone. As such, and pending approval and adoption of the Southern California National Forests LMP Amendment, SDG&E’s proposed project for TL626 would entail the installation of a use/activity considered not suitable in the Recommended Wilderness land use zone. This inconsistency with the LMP Amendment land use zones is considered a conflict under NEPA and a potentially significant impact under CEQA. With implementation of MM LU-2, inconsistencies with the LMP Amendment would be allowed and more specifically, the portion of TL626 being considered Developed Facilities by the Forest Service would be allowed within the Recommended Wilderness land use zone. With

implementation of MM LU-2, conflicts with the CNF LMP Amendment would be addressed as required by the National Forest Management Act and resolved under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II). While MM LU-2 would provide an exception for the project and allow authorization of the project, it does not address the physical effects associated with the project-specific plan amendment. Those physical effects are analyzed under impacts to the existing and planned land uses (Impacts LU-1 and LU-2) and in other land use-related topics addressed in this EIR/EIS. Aesthetic/visual resource issues are described in Section D.2, biological resources are addressed in Section D.4, hydrology and erosion issues are addressed in Section D.9, noise is addressed in Section D.11, and recreation issues are addressed in Section D.13 of this EIR/EIS.

D.10.4 Forest Service Proposed Actions

D.10.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Options 1 through 4 would reroute TL626 and traverse a combination of CNF-managed lands, private lands, and Tribal lands. The new ROWs would largely cross undeveloped and rural lands designated in the San Diego County General Plan as Public Agency Lands and Rural Land as well as Resource Conservation Areas, and would also traverse lands designated Public/Semi-Public Facilities and Semi-Rural Residential. Sensitive land uses would be similar to that identified in Sections D.10.1 and D.10.2, except that four residences are located in the vicinity of these routes compared to none along the existing TL626.

Option 5, which would relocate a portion of TL 626 around the Inaja Picnic area, is located entirely within the CNF and in the same geographic region as SDG&E's proposed project; therefore, the environmental setting would be similar to that identified in Sections D.10.1 and D.10.2.

With the exception of the alternative segments of TL626, all other aspects and impacts of SDG&E's proposed project would remain unchanged.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impact LU-1: This alternative would reroute a segment of TL626 to the east along a new undisturbed ROW approximately 5.5 miles (Option 1) or 5.6 miles (Option 2) (Figure B-4a). All other project components would remain the same. Temporary disturbance due to construction

would be greater than the project due to the increased activities required to develop a new and longer ROW along with the need to develop new access and would have a greater potential to affect sensitive receptors compared to the reconstruction of TL626 in place as proposed. For residences within 1,000 feet or less from Option 1 and 2 components, residences would be temporarily disturbed by construction activities due to the presence of heavy construction equipment on temporary and permanent access roads, the constant movement of materials and facility equipment to sites and return trips to construction staging areas, and the resulting noise and air quality disturbances. However, with implementation of MM LU-1 as required for SDG&E's proposed project, temporary adverse and significant construction impacts to sensitive receptors would be mitigated under NEPA, and under CEQA, impacts would be less than significant with mitigation (Class II).

Impact LU-2: Options 1 and 2 would establish a new overhead ROW on the periphery of the community of Pine Hills, which consists of a sparsely developed rural landscape. The establishment of a new ROW and overhead power line alignment across undeveloped or sparsely developed rural lands would create a new, linear pattern in the natural-appearing landscape where none are currently visible. While development of the new 69 kV transmission line would not physically displace residential or other land uses, residences would be subject to potential indirect impacts to the quality, access, and functionality of residential land uses associated with visual quality, noise, and public health and safety impacts, as further described in this EIR/EIS, and therefore placement of the 69 kV power line as proposed under Options 1 and 2 would disrupt the physical arrangement of an established community. With implementation of MM LU-3, this adverse and significant impact would be mitigated under NEPA and would be less than significant with mitigation under CEQA (Class II).

MM LU-3 **Revise project elements to minimize land use conflicts.** At least 90 days prior to completing final transmission line design for the approved route, the project applicant shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which to identify conflicts with any planned development on the subject property and to work with the project applicant to identify potential reroutes of the alignment that would be mutually acceptable to the project applicant and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. The project applicant shall endeavor to accommodate these reroutes to the extent that they are feasible and do not create adverse impacts to resources or to other

properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.

Impact LU-3: Options 1 and 2 would realign a segment of TL626 into primarily private lands designated by the County of San Diego as Public Agency Lands and Rural Land as well as Resource Conservation Areas and lands designated Public/Semi-Public Facilities and Semi-Rural Residential. The Rural Land area traversed by options 1 and 2 is sparsely settled with several residences and would require a new ROW. Option 1 would require a new ROW from the Inaja and Cosmit Reservation and approximately 12 private landowners. Under Option 2, a new ROW would be required from the Forest Service and approximately 13 private landowners. Both Options 1 and 2 would traverse Forest Service lands zoned Back Country Non-Motorized and would be considered Developed Facilities along this segment. As a result, Options 1 and 2 would be inconsistent with the established land use zones of the existing CNF LMP. Options 1 and 2 would however avoid the Cedar Creek IRA and lands that would be designated Recommended Wilderness by the forthcoming LMP Amendment. Therefore, when compared to SDG&E's proposed project for TL626, authorization of Options 1 and 2 would result in fewer land use conflicts by avoiding inconsistencies with the Recommended Wilderness land use zone of the CNF LMP Amendment. Construction, operations, and maintenance would proceed in a similar fashion as that described for SDG&E's proposed project.

Inconsistencies with the land use zones of the existing CNF LMP are considered a conflict under NEPA and a significant impact under CEQA. With implementation of MM LU-2, inconsistencies with the existing CNF LMP and portions of Options 1 and 2 considered Developed Facilities within the Back Country Non-Motorized land use zone would be allowed. Therefore, conflicts with the CNF LMP would be addressed as required by the National Forest Management Act and resolved under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II). While MM LU-2 resolves the conflict with the CNF LMP and allows for a viable project, it does not reduce the project effects that caused the conflict with the plan. Those physical effects are analyzed under impacts to the existing and planned land uses (Impacts LU-1 and LU-2) and in other land use-related topics addressed in this EIR/EIS. Aesthetic/visual resource issues are described in Section D.2, biological resources are addressed in Section D.4, hydrology and erosion issues are addressed in Section D.9, noise is addressed in Section D.11, and recreation issues are addressed in Section D.13 of this EIR/EIS. MM LU-2 would be included in any decision that authorizes this alternative.

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impact LU-1: Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. The rerouted underground segment of Option 3a is approximately 11.4 miles long, and Option 3b is 6.3 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment). Temporary impacts resulting from construction activities would be greater than those identified for SDG&E's proposed project due to open trenching along Boulder Creek Road. However, impacts would occur within an existing road ROW. Due to the rural and largely undeveloped nature in the vicinity of Boulder Creek Road, there would not be a substantial change to the baseline condition including the number of sensitive receptors. Therefore, as with SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA and under CEQA, impacts would be less than significant with mitigation (Class II).

Impact LU-2: The proposed undergrounded portions of the 69 kV transmission line along Boulder Creek Road would not divide an established community or disrupt land uses adjacent to the power line. Additionally, the 1-mile overhead segment to interconnect back into the existing TL626 would be located to the west of the community of Pine Hills, primarily within the CNF and would not divide an established community. While development of the new overhead ROW would not physically displace residential or other land uses, residences would be subject to potential indirect impacts to the quality, access, and functionality of residential land uses associated with visual quality, noise, and public health and safety impacts, as further described in this EIR/EIS. Therefore, establishment of a new approximately –1-mile-long overhead ROW as proposed under Options 3a and 3b would disrupt nearby land uses. With implementation of MM LU-3, this adverse and significant impact would be mitigated under NEPA and would be less than significant with mitigation under CEQA (Class II).

Impact LU-3: By relocating the identified segment of TL626 to Boulder Creek Road and out of the Cedar Creek IRA, Options 3a and 3b would avoid Forest Service lands designated Back Country Non-Motorized by the existing CNF LMP and lands that would be designated Recommended Wilderness by the forthcoming LMP Amendment. Therefore, Option 3a and 3b would avoid conflicts with the established land use zones of the existing CNF LMP and the LMP Amendment and by comparison, would result in fewer CNF LMP land use conflicts than SDG&E's proposed project for TL626.

While a short segment would be installed overhead near the community of Pine Hills, nearly all of Option 3a and Option 3b would be installed underground within Boulder Creek Roadway (see

Figure B-4b). Because Boulder Creek Road is a County of San Diego-maintained road, SDG&E would be required to obtain an encroachment permit for underground work from the County of San Diego Department of Public Works. Construction, operations, and maintenance would proceed in a similar fashion as that described for SDG&E's proposed project. Failure to obtainment an encroachment permit from the applicable land use jurisdictional agency would be considered a conflict under NEPA and a potentially significant impact under CEQA. Therefore, MM LU-3 has been provided. With implementation of MM LU-4,, land use conflicts under NEPA would be addressed and resolved. Under CEQA, impacts would be less than significant with mitigation under CEQA (Class II).

MM LU-4 Prior to construction, for any structure or object that is placed in, under, or over any portion of a county roadway, SDG&E shall obtain, from the San Diego County Director, Department of Public Works (DPW), a written encroachment permit in accordance with Section 71 (Highway and Traffic) of the San Diego County code of Regulatory Ordinances.

Option 4: Overhead Relocation along Boulder Creek Road

Environmental Effects

Impact LU-1: Option 4 would consist of placing a segment of TL626 overhead in Boulder Creek Road and overland as shown in Figure B-4a. The rerouted segment of Option 4 is approximately 4.7 miles longer than proposed by the project. Construction and operation impacts related to land use and planning would reflect the impact findings similar to those discussed in Section D.10.3.3 for SDG&E's proposed project. Due to the rural nature in the vicinity of Boulder Creek Road proposed under this alternative, there would not be a substantial change to the baseline condition including the number of sensitive receptors. Therefore, as with SDG&E's proposed project, with implementation of MM LU-1, Impact LU-1 would be mitigated under NEPA, and under CEQA, impacts would be less than significant with mitigation (Class II).

Impact LU-2: Option 4 would establish a new overhead ROW on the periphery of the community of Pine Hills, which consists of a sparsely developed rural landscape. The establishment of a new ROW and overhead power line alignment across undeveloped or sparsely developed rural lands would create a new, linear pattern in the natural-appearing landscape where none are currently visible. While development of the new 69 kV power line would not physically displace residences or other land uses, these residences would be subject to potential indirect impacts to the quality, access, and functionality of residential land uses associated with visual quality, noise, and public health and safety impacts as further described in this EIR/EIS and therefore placement of the 69 kV power line as proposed under Option 4 would disrupt the physical arrangement of an established community. With implementation of MM LU-3, this

adverse and significant impact would be mitigated under NEPA and would be less than significant with mitigation under CEQA (Class II).

Impact LU-3: Impact LU-3 would primarily reflect impact findings previously discussed in Section D.10.4.1 for the TL626 option 3a. By relocating the identified segment of TL626 to Boulder Creek Road and out of the Cedar Creek IRA, Option 4 would avoid Forest Service lands designated Back Country Non-Motorized by the existing CNF LMP. In addition, Option 4 would avoid lands that would be designated Recommended Wilderness by the forthcoming LMP Amendment. Therefore, Option 4 would avoid conflicts with the established land use zones of the existing CNF LMP and the LMP Amendment and by comparison, would result in fewer CNF LMP land use conflicts than SDG&E's proposed project for TL626. Option 4 would however construct an overhead alignment adjacent to and/or crossing Boulder Creek Road and would require an encroachment permit from the County of San Diego, a new ROW from private property owners, and a new ROW from the Inaja and Cosmit Reservation. As construction, operations, and maintenance would proceed in a similar fashion as that described for SDG&E's proposed project, it is anticipated that with implementation of MM LU-3 and MM LU-4, development of Option 4 would not conflict with local policies, ordinances, or regulations. Therefore, with implementation of MM LU-4, land use plan and policy conflicts would be resolved under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts LU-1 and LU-2: Option 5 would reroute less than 0.5-mile segment in close proximity to the existing TL626 alignment (Figure B-4c). All other project components would remain the same. Construction and operational impacts related to land use and planning would essentially be the same for the relocation of TL626 under Option 5 as described in Section D.10.3.3 for SDG&E's proposed project. Due to the rural nature in the vicinity of the effected portion of TL626 proposed under this alternative, there would not be a substantial change to the baseline condition including the number of sensitive receptors. Therefore, as with SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA, and under CEQA, impacts would be less than significant with mitigation (Class II). Because travel within and outside of the project area would not be physically impeded by the presence of new structures or line associated with Option 5, a physical division of an established community would not occur. As such, LU-2 impacts associated with the division of an established community and/or disruption of land uses during operations would not be adverse under NEPA and under CEQA, impacts would be less than significant (Class III).

Impact LU-3: Within the CNF, the overhead and underground segments of Option 5 would traverse the Developed Area Interface and Back Country Non-Motorized land uses zones. While these land use zones are also traversed by SDG&E's proposed project, the establishment of Option 5 would likely entail the installation of the power line and construction of access road across the Back Country Non-Motorized land use zone located north of pole Z213737. As such, a short segment of Option 5 would be considered a Developed Facility and would conflict with the established land use zones of the LMP. The remaining segments of TL626 would be the same as identified for SDG&E's proposed project and would result in similar conflicts with the existing LMP and LMP Amendment. Due to the establishment of an access road on Forest Service lands zoned Back Country Non-Motorized north of pole Z213737 and southeast of the Inaja Memorial Trail scenic overlook, Option 5 would result in a new inconsistency with the established land use zones of the existing LMP. This conflict does not occur in the existing condition. Therefore, by comparison, Option 5 would result in greater CNF LMP land use conflicts than SDG&E's proposed project for TL626.

Inconsistencies with the land use zones of the existing CNF LMP are considered a conflict under NEPA and a significant impact under CEQA. With implementation of MM LU-2, inconsistencies with the existing CNF LMP and the CNF LMP Amendment would be allowed. Therefore, conflicts with the CNF LMP would be resolved as required by the National Forest Management Act. Under CEQA, impacts would be less than significant with mitigation (Class II). While MM LU-2 resolves the conflict with the CNF LMP and allows for a viable project, it does not reduce the project effects that caused the conflict with the plan. Those physical effects are analyzed under impacts to the existing and planned land uses (Impacts LU-1 and LU-2) and in other land use-related topics addressed in this EIR/EIS. Aesthetic/visual resource issues are described in Section D.2, biological resources are addressed in Section D.4, hydrology and erosion issues are addressed in Section D.9, noise is addressed in Section D.11, and recreation issues are addressed in Section D.13 of this EIR/EIS. MM LU-2 would be included in any decision that authorizes this alternative.

D.10.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.10.1 and D.10.2 describe the existing environmental setting associated with proposed project. The Forest Service proposed action for C157 would be in the same geographic region as SDG&E's proposed project; therefore, the land use and planning setting would be similar as that identified in Sections D.10.1 and D.10.2.

With the exception of the alternative segments of C157, all other aspects and impacts of SDG&E's proposed project would remain unchanged.

Environmental Effects

Impacts LU-1: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). All other project components would remain the same. Construction and operational impacts related to land use would essentially be the same for the relocation of C157 under options 1 and 2 as described in Section D.10.3.3 for SDG&E's proposed project. Due to the rural nature in the vicinity of C157 proposed under this alternative, there would not be a substantial change to the baseline condition including the number of sensitive receptors. Therefore, as with SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA, and under CEQA, impacts would be less than significant with mitigation (Class II).

Impact LU-2: Options 1 and 2 shift the alignment approximately 0.25 mile south from the existing alignment; therefore, as with SDG&E's proposed project, they would not divide an established community and no impact would occur (Impact LU-2).

Impact LU-3: The project as proposed for C157 is not consistent with the Wilderness Act of 1964, as C157 is currently within the boundaries of the federally designated Pine Creek Wilderness and the Hauser Wilderness. Under options 1 and 2, C157 would be realigned to locate poles and the distribution line outside of the designated wilderness areas. As such, Options 1 and 2 would avoid lands zoned Existing Wilderness by the existing CNF LMP and would avoid Congressionally designated wilderness. Compared to SDG&E's proposed project for C157, Options 1 and 2 of this alternative would result in fewer conflicts with the established land use zones of the CNF LMP.

Option 1: Option 1 would comply with the provisions of the Wilderness Act of 1964 and would avoid the Existing Wilderness land use zone. However, Option 1 would be relocated within an area that the City of San Diego has ranked as highest priority for conservation in the draft City Public Utilities Department's LMP, and therefore, would conflict with the suitability of uses within a designated conservation area. A conflict with the City's conservation area is considered an adverse impact under NEPA and potentially significant impact under CEQA. Selection of Option 2 would mitigate this impact under NEPA, and under CEQA the impact would be mitigated to less than significant (Class II).

Option 2: Option 2 would comply with the provisions of the Wilderness Act of 1964, avoids the Existing Wilderness land use zone and avoids impacts to the City's draft LMP. Therefore, LU-3 impacts would not be adverse under NEPA and less than significant under CEQA (Class III).

D.10.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

Sections D.10.1 and D.10.2 describe the existing environmental setting associated with C440. This alternative would consist of undergrounding an additional approximately 14.3 miles of C440 proposed for replacement within existing roadways in the Laguna Mountain Recreation Area. As this area is in the same geographic region as SDG&E's proposed project, the land use and planning environmental setting would be the same as that identified in Sections D.10.1 and D.10.2.

With the exception of the alternative segments of C440, all other aspects and impacts of SDG&E's proposed project would remain unchanged.

Environmental Effects

Impact LU-1: Besides undergrounding C440 as proposed by the project, this alternative would consist of undergrounding an additional 14.3 miles of C440 within existing paved roadways in the Laguna Mountain Recreation Area. All other project components would remain the same. There would be an increase in the number of sensitive receptors including residences and recreational users that could be affected by temporary construction activities. Similar to SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA, and under CEQA, impacts would be less than significant (Class II).

Impact LU-2 Impact LU-2 would reflect similar impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project. As such, no land use impacts relating to the division of an established community would occur.

Impact LU-3: The entirety of the Laguna Mountain Recreation Area is designated Developed Area Interface. Both Non-Recreational Special Uses: Low Intensity Land Uses and Developed Facilities are considered suitable uses within the Developed Area Interface land use zone. As such, development of this alternative would not conflict with the established land use zones of the existing CNF LMP. In addition to undergrounding segments of C440 as proposed by SDG&E, this alternative would underground an additional 14.3 miles of C440 within existing paved roadways in the Laguna Mountain Recreation Area. The County of San Diego maintains

Sunrise Highway, Mt. Laguna Drive, Mt. Laguna Place, and Los Huecos Road within the Laguna Mountain Recreation Area (County of San Diego 2014b) and accordingly, underground work along these roads would require an encroachment permit from the County of San Diego Department of Public Works. As construction, operations, and maintenance would proceed in a similar fashion as that described for SDG&E's proposed project, it is anticipated that with implementation of MM LU-4, development of this alternative would not conflict with local policies, ordinances, or regulations. Therefore, with implementation of MM LU-4, conflicts with local policies, ordinances, or regulations would be addressed and resolved under NEPA. Under CEQA, impacts would be less than significant with mitigation (Class II).

D.10.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.10.1 and D.10.2 describe the existing environmental setting associated with TL682. The BIA proposed action for TL682 would relocate poles and underground approximately 1,500 feet on Tribal lands. As this area is in the same geographic region as SDG&E's proposed project, the land use and planning setting would be similar to that identified in Sections D.10.1 and D.10.2.

Environmental Effects

Impact LU-1: This alternative would consist of placing approximately 1,500 feet of TL682 underground and relocating poles on Tribal lands. All other project components would remain the same. Temporary LU-1 impacts resulting from construction activities would be slightly greater than those identified for SDG&E's proposed project due to open trenching required for the undergrounding. However, because the modifications proposed to TL682 under this alternative would occur primarily along the existing ROW for TL682, there would not be a change to the baseline condition including the number of sensitive receptors. Therefore, as with SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA, and under CEQA, impacts would be less than significant (Class II).

Impact LU-2: Similar to SDG&E's proposed project, the construction, operations, and maintenance of this alternative would not divide an established community. As such, no land use impacts relating to the division of an established community would occur.

Impact LU-3: Impact LU-3 would reflect impact findings previously discussed in Section D.6.3.3 for SDG&E's proposed project. There would be no additional conflicts with local land use plans or policies with implementation of this alternative.

D.10.6 Additional Alternatives

D.10.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.10.1 and D.10.2.

Environmental Effects

Impacts LU-1: Under this alternative, overland access in rugged terrain that exceeds grades of 25% for appreciable distances in proximity to creeks (as outlined in Section C.4.2) would be removed and the areas restored. This alternative removes up to 10.5 miles of certain segments of existing exclusive use access roads that are too steep to effectively control road drainage, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre). All other project components would remain the same. Construction impacts would be essentially the same as SDG&E's proposed project as described in Section D.10.3.3 because there would be no change to temporary construction impacts identified for sensitive land uses under this alternative. Therefore, as with SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA, and under CEQA, impacts would be less than significant (Class II).

Impact LU-2: This alternative would reflect impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project; therefore, no impact would occur.

Impact LU-3: Impact LU-3 would be reduced under this alternative as the exclusive use access road along TL626 associated with the highly impacted Cedar Creek riparian area within the CNF LMP Amendment area would be removed reducing conflicts with the LMP (see Section D.4, Biological Resources, for additional details). There would be no additional conflicts with local land use plans or policies with implementation of this alternative.

D.10.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace with system upgrades; either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with the upgrades is described as follows:

- a. Upgrade the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation. The setting associated with this component is largely described in SDG&E's TL6931 Fire Hardening Project PEA (SDG&E 2012). As described, the setting consists of the existing TL6931 surrounded by sparsely undeveloped rural land designated in the San Diego County General Plan as Rural and Semi-Rural land uses. Sensitive receptors include approximately 20 residences identified within 200 feet of the existing ROW; no other sensitive receptors have been identified within 0.25 mile of the ROW.
- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. As described in the Sunrise Powerlink EIR/EIS, the majority of the terrain associated along the proposed 3-mile TL625 loop-in consists of rugged and remote terrain with the closest sensitive receptors located 500 feet from the proposed alignment.
- c. Convert a 6.5-mile portion of TL626 between the Santa Ysabel and Boulder Creek Substations, along with a 6.8-mile section that is co-located with C79, from 69 kV to 12 kV, which is within the same study area as SDG&E's proposed project. Therefore, the environmental setting would be the same as that identified in Sections D.10.1 and D.10.2.

Environmental Effects

Under this alternative, a 6-mile portion of TL6931 would be reconstructed, or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of the TL626 would be converted from 69 kV to 12 kV.

Reconstruction of TL6931

Impacts LU-1: Reconstruction of TL6931 would consist of construction activities similar to that described for the project. Due to the nature of the existing TL6931 alignment, there would not be a substantial change to the baseline condition including the presence of sensitive receptors that could be exposed to temporary construction land use impacts, and therefore LU-1 impacts would reflect similar impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of MM LU-1, adverse and significant Impact LU-1 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

Impact LU-2: The proposed reconstruction would follow the existing TL 6931, which currently divides an established community. The proposed reconstruction of TL6931 would not alter the current baseline condition in such a way as to further divide an established community, and this

component would reflect similar impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project. Therefore, no impact would occur (Impact LU-2).

Impact LU-3: Reconstruction of TL6931 would avoid identified adverse and significant Class II LU-3 impacts associated with SDG&E's proposed replacement of TL626, as discussed in Section D.10.3.3, without creating additional impact. Within the San Diego County General Plan, the Mountain Empire Subregional Plan and Boulevard Subregional Planning Area contain policies applicable to TL6931. As described in SDG&E's TL6931 Fire Hardening Project PEA, the reconstruction of TL6931 is consistent with relevant policies of these plans, such as maintaining unobstructed access to power lines, review by SDG&E of encroachments to facilities or alteration of drainage patterns, and the use of existing ROWs for development of new transmission lines. As TL6931, is consistent with applicable planning documents, impacts to relevant land use plans or policies would not be adverse under NEPA, and under CEQA would be less than significant (Class III).

Development of the New 3-Mile Loop-in of TL625

Impacts LU-1: Development of the new TL625 loop-in would consist of similar construction as well as operations and maintenance activities as that described for the project in areas of rugged terrain. Due to the existing undeveloped nature of the proposed alignment, there would not be a substantial change to the baseline condition including the number of sensitive receptors. Therefore, Impact LU-1 would reflect similar impact findings previously discussed in Section D.10.3.3. As with SDG&E's proposed project, implementation of MM LU-1 would, under NEPA, mitigate adverse Impact LU-1 associated with this component, and under CEQA, significant impacts would be less than significant with mitigation (Class II).

Impact LU-2: The proposed loop-in of TL625 would follow the Sunrise Powerlink and would not alter the current baseline condition in such a way as to further divide an established community; therefore, this component would reflect similar impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project. Therefore, no impact would occur (Impact LU-2).

Impact LU-3: The loop-in of TL 626 would avoid identified adverse and significant Class II LU-3 impacts associated with SDG&E's proposed replacement of TL626, as discussed in Section D.10.3.3, without creating additional impact. The proposed loop-in of TL625 adjacent to the existing Sunrise Powerlink is consistent with CNF LMP direction to co-locate facilities and would occur within suitable land use zones. Therefore, Impact LU-3 would not be adverse under NEPA and would be less than significant under CEQA (Class III).

Convert Segments of TL626 from 69 kV to 12 kV

Impact LU-1: Conversion of segments of TL626 to 12 kV would consist of similar construction as well as operations and maintenance activities as that described for the project; therefore, Impact LU-1 would reflect similar impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM LU-1 would mitigate adverse and significant Impact LU-1 associated with this component. Under NEPA impacts would be mitigated, and under CEQA, impacts would be less than significant with mitigation (Class II).

Impact LU-2: Similar to SDG&E's proposed project, the construction, operations, and maintenance of this alternative would not divide an established community. As such, no land use impacts relating to the division of an established community would occur.

Impact LU-3: Conversion of segments of TL626 to 12 kV and removal of the rest of TL626, including approximately 3.5 miles of the existing line and associated access roads that are causing water quality impacts in the Cedar Creek watershed, would eliminate conflicts with the CNF LMP resulting for reconstruction of TL626 as proposed. Conversion and removal of TL626 as proposed would avoid conflicts with established land use zones of the existing CNF LMP and with lands that would be designated Recommended Wilderness by the LMP Amendment. Therefore, Impact LU-3 would not be adverse under NEPA and would be less than significant under CEQA (Class III).

D.10.7 No Action Alternative

Environmental Effects

Impact LU-1 through LU-3: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands, thereby eliminating identified land use conflicts (Impact LU-3), as discussed in Section D.10.3.3. However, under the No Action Alternative, SDG&E would be required to develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional transmission lines in conformance with California Independent System Operator (CAISO) requirements and/or alternative means of delivering electrical service elsewhere would result in similar or greater land use impacts as described in Section D.10.3.

D.10.8 No Project Alternative

Environmental Effects

Impacts LU-1 through LU-3: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain; therefore, none of the construction impacts described in Section D.10.3 would occur. However, the ongoing land use conflicts with the CNF LMP associated with TL626 and C442 and conflicts with the Wilderness Act and CNF LMP associated with C157 would continue. Operation and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions; therefore, no additional impacts over existing conditions to land use and planning would occur.

D.10.9 Mitigation Monitoring, Compliance, and Reporting Program

Table D.10-10 presents the mitigation monitoring, compliance, and reporting program for land use for SDG&E’s proposed project and alternatives.

Table D.10-10
Mitigation Monitoring, Compliance, and Reporting – Land Use

Mitigation Measure	MM LU-1
	<p>Prepare Construction Notification Plan. Forty-five (45) days prior to construction, the project applicant shall prepare and submit a Construction Notification Plan to the appropriate land use jurisdiction agency for approval. The plan shall identify the procedures that will be used to inform private landowners, schools, and agencies with authority over recreational areas/facilities of the location and duration of construction; identify approvals that are needed prior to posting or publication of construction notices; and include text of proposed public notices and advertisements. The plan shall address at a minimum the following components:</p> <ul style="list-style-type: none"> • Public notice mailer. A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties and other sensitive land uses. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. The project applicant shall mail the notice to all residents or property owners within 1,000 feet of project components and to all land use agencies having jurisdiction over a recreation area/facility located within 1,000 feet of a project component. If construction delays of more than 7 days occur, an additional notice shall be prepared and distributed. To facilitate access to properties obstructed by construction activities, the project applicant shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required. • Newspaper/website advertisements. Fifteen (15) days prior to construction of any project component, notices shall be placed in local newspapers and

Table D.10-10
Mitigation Monitoring, Compliance, and Reporting – Land Use

	<p>bulletins, including Spanish language newspapers and bulletins, and on the relevant websites of jurisdictional agencies. The Forest Supervisor, District Rangers, and Public Affairs Officer of the Cleveland National Forest shall also be notified. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction.</p> <ul style="list-style-type: none"> • Public venue notices. Thirty (30) days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, trailheads, informational kiosks, and other public venues applicable to the electrical facility under construction to inform affected residents and recreationists of the purpose and schedule of construction activities. • Public liaison person and toll-free information hotline. The project applicant shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. The project applicant shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.
<i>Location</i>	Any project component where residences are located within 1,000 feet of SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Prepare construction notification plan as defined.</p> <p>b. Provide construction notices for review and approval</p> <p>c. CPUC/Forest Service Monitor: Line item in compliance monitoring report</p>
<i>Timing</i>	<p>a. At least 45 days prior to construction as defined</p> <p>b. Prior to construction as defined</p> <p>c. During construction</p>
<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79),</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM LU-2 In order to allow for existing and proposed facilities, the Forest Service will approve a project-specific CNF Land Management Plan Amendment contemporaneously with the decision to authorize the MSUP and pole replacement project. The project-specific plan amendment would amend the Land Management Plan to allow project-specific exemptions for inconsistencies with the CNF Land Management Plan land use zones and standards.</p>
<i>Location</i>	TL626, C442, TL626 Forest Service Alternative (Options 1,2, and 5)
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Forest Service amends the LMP contemporaneously with the authorization of the MSUP and approval to rebuild, operate, and maintain TL626, C442, and TL626 Forest Service Alternative (Options 1, 2, and 5) as proposed or modify the land use zones</p>

**Table D.10-10
Mitigation Monitoring, Compliance, and Reporting – Land Use**

	b.	The LMP Amendment is described in any project Record of Decision authorizing TL626, C442, and TL62 Forest Service Alternative (Options 1, 2, and 5) as proposed
Timing	a. and b.	Contemporaneously with the Record of Decision
Responsible Agency		Forest Service
Mitigation Measure	MM LU-3	Revise project elements to minimize land use conflicts. At least 90 days prior to completing final transmission line design for the approved route, the project applicant shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which to identify conflicts with any planned development on the subject property and to work with the project applicant to identify potential reroutes of the alignment that would be mutually acceptable to the project applicant and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. The project applicant shall endeavor to accommodate these reroutes to the extent that they are feasible and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.
Location		TL626 alternative alignment (Option 1, 2, and 4) where new ROW across private lands would be required
Compliance Documentation ^(a) and Consultation	a. b. c. d. e.	Provide verification of property owner notification. Identified by property owners provide potential conflicts to SDG&E SDG&E provides potential conflicts to the Forest Service and CPUC for review SDG&E shall provide written responses to each submitted conflict/comment. CPUC/Forest Service Monitor: Line item in compliance monitoring report
Timing	a. b. c. d. e.	At least 90 prior to final transmission line design At least 30 prior to final transmission line design Reasonable and feasible reroutes reviewed by CPUC, Forest Service, BIA and Inaja and Cosmit Tribe to minimize land use conflicts. Reduced land use conflicts to be reviewed against potential increased impacts to other resource areas. Prior to final transmission line design Prior to notice to proceed
Responsible Agency		CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)
Mitigation Measure	MM LU-4	Prior to construction, for any structure or object that is placed in, under, or over any portion of a county roadway, SDG&E shall obtain, from the San Diego County Director, Department of Public Works (DPW), a written encroachment permit in accordance with Section 71 (Highway and Traffic) of the San Diego County code of Regulatory Ordinances.
Location		TL626 alternative alignment (Option 3 and 4 in and along Boulder Creek Road), C440 Additional Undergrounding Alternative (County-maintained roads in Laguna Mountain Recreation Area)
Compliance Documentation ^(a) and Consultation	a. b.	Provide verification of Encroachment Permit(s) obtained from the San Diego County Department of Public Works CPUC/Forest Service Monitor: Line item in compliance monitoring report
Timing	a. and b.	Prior to construction
Responsible Agency		CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626)

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

D.10.10 Residual Unavoidable Effects

As discussed in Section D.10.3.3, C157 as proposed would result in adverse and unmitigable land use conflicts (Impact LU-3). C157 would conflict with the Forest Service LMP and with provisions of the Wilderness Act. While SDG&E is free to lobby Congress for a special exemption to rebuild, operate, and maintain C157 as proposed, the statutory conflict requiring Congressional action would be considered adverse and unavoidable under NEPA and significant and unmitigable under CEQA (Class I).

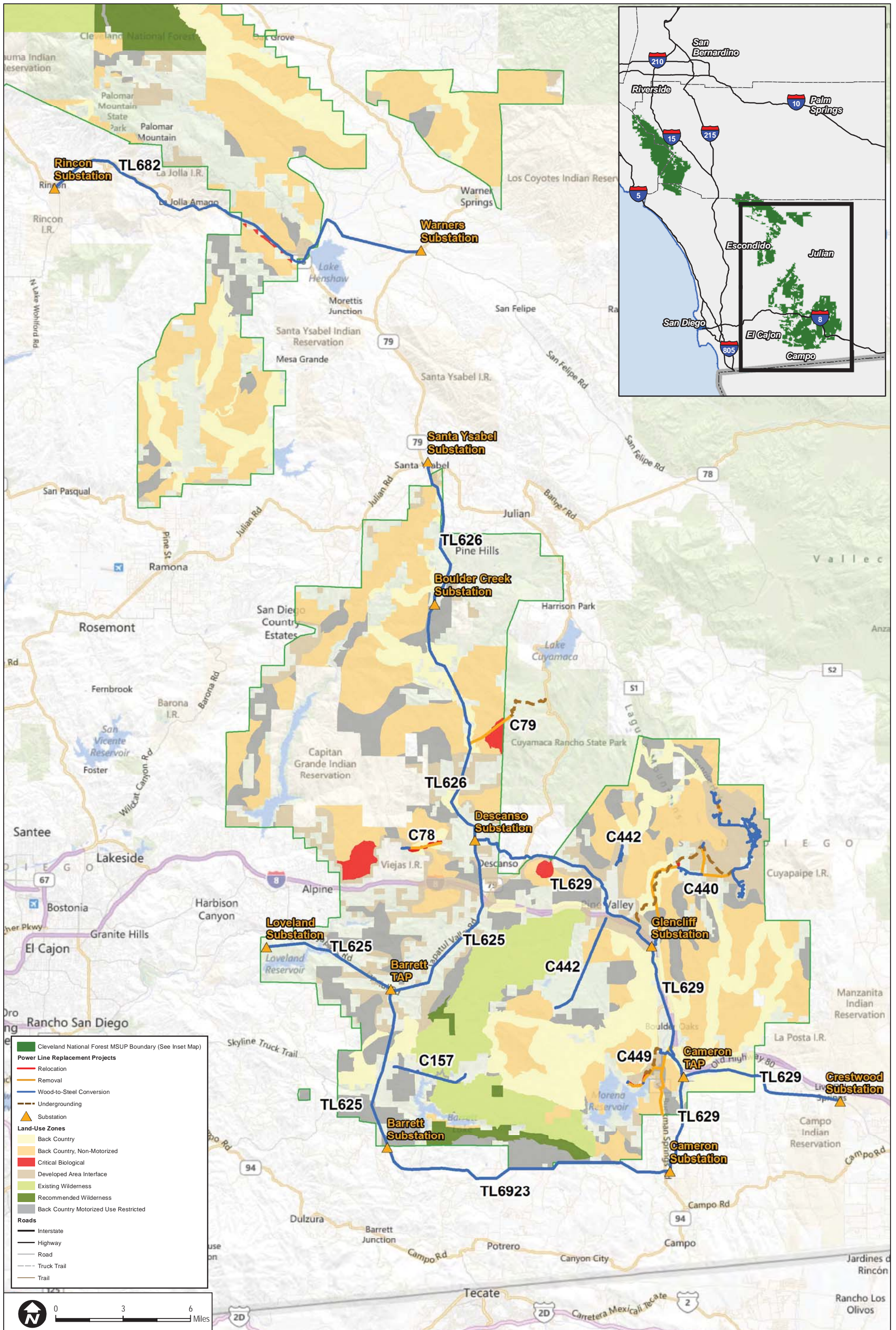
Forest Service proposed actions including TL 626 Options 1 through 4, and C157 Options 1 and 2, as well as the Removal of TL626 from service alternative would relocate portions of these lines and thereby reduce Impact LU-3 adverse and unmitigable impacts under NEPA and significant and unavoidable under CEQA (Class I), to mitigated under NEPA and less than significant with mitigation under CEQA (Class II).

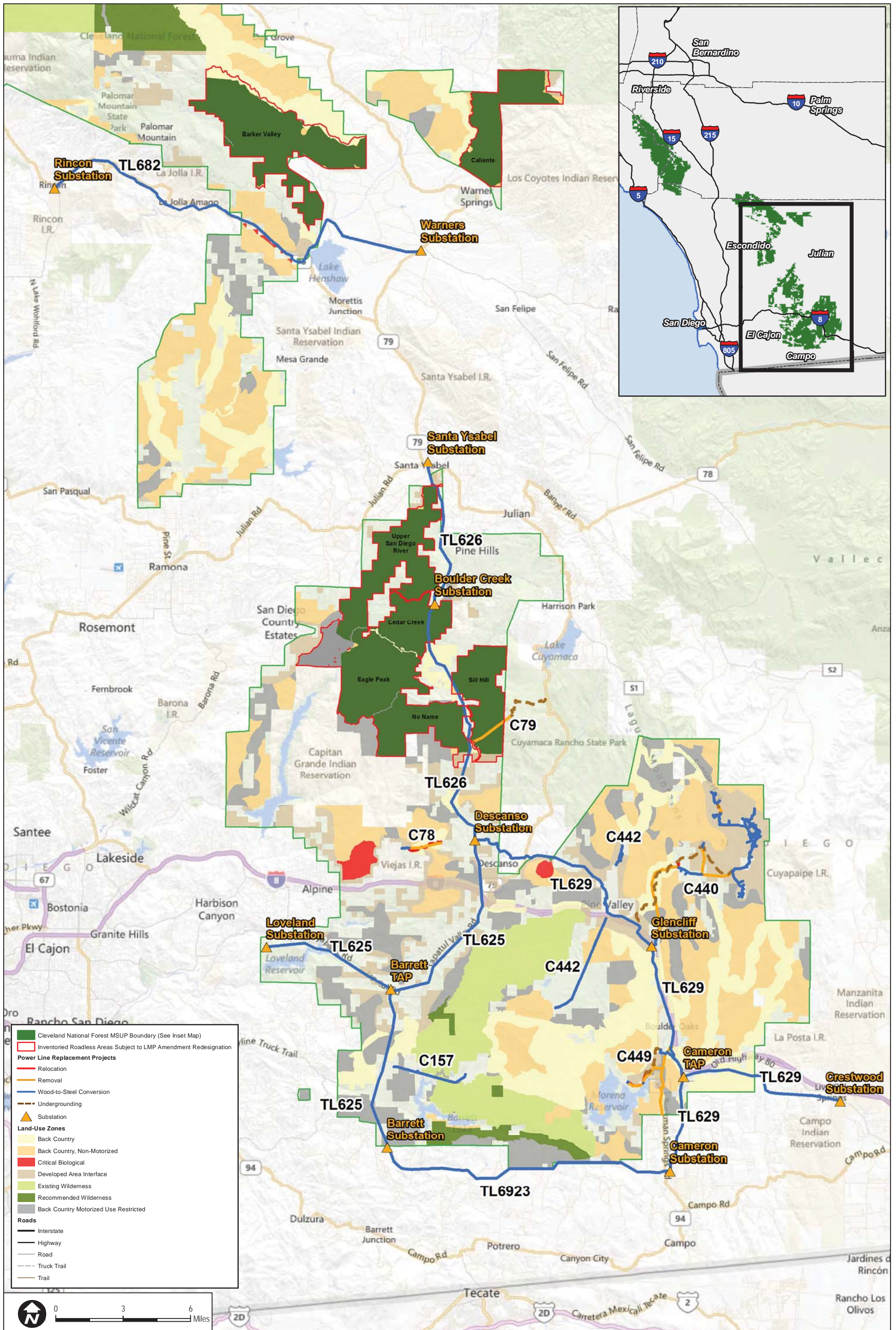
D.10.11 References

- 14 CCR 15000–15387 and Appendix A–L. Guidelines for the Implementation of the California Environmental Quality Act, as amended.
- 16 U.S.C. 1131–1136. Wilderness Act of 1964, as amended. Public Law 88-577.
- 16 U.S.C. 1271–1287. National Wild and Scenic Rivers Act.
- 36 CFR 261.20. Pacific Crest National Scenic Trail.
- 43 U.S.C. 1701–1785. Federal Land Policy and Management Act of 1976, as amended.
- BLM (Bureau of Land Management). 1994. *South Coast Resource Management Plan and Record of Decision*. Palm Springs, California: BLM, California Desert District. June 1994.
- BLM. 2011. *South Coast Draft Resource Management Plan and Environmental Impact Statement*. August 2011.
- California Department of Parks and Recreation. 1986. *Cuyamaca Rancho State Park General Plan*. April 1986.
- California Department of Parks and Recreation. 2013. “Cuyamaca Rancho State Park General Plan, Update March 6, 2013.” Accessed March 7, 2013. http://www.parks.ca.gov/?page_id=27169.
- California Public Resources Code, Section 5019.68. Definition of State Wilderness.

- California Public Resources Code, Sections 5093.30–5093.40. California Wilderness Act of 1984.
- County of San Diego. 2008. “Environmental Review Update Checklist Form, For projects with Previously Approved Environmental Documents: For Purposes of Consideration of SDG&E Mountain Empire Training Facility, P88-044W.” County of San Diego, Department of Planning and Land Use. June 5, 2008.
- County of San Diego. 2011. *San Diego County General Plan Update: A Plan for Growth, Conservation, and Sustainability*. August 2011. <http://www.sdcountry.ca.gov/dplu/generalplan.html>.
- County of San Diego 2013. “County of San Diego: Camp Barrett.” Accessed March 13, 2013. http://sdcounty.ca.gov/probation/camp_barrett.html.
- County of San Diego. 2014a. San Diego County Zoning Ordinance, as amended. Adopted October 18, 1978, updated through Ordinance No. 95, February 2014.
- County of San Diego. 2014b. Index of the County Maintained Road System. Print date 12/31/2013.
- CPUC (California Public Utilities Commission) and BLM. 2008a. *Recirculated Draft EIR/Supplemental EIS for the Sunrise Powerlink Project*. SCH no. 2006091071. Prepared by Aspen Environmental Group. October 2008.
- CPUC and BLM. 2008b. *Final EIR/EIS and Proposed Land Use Amendment for the Sunrise Powerlink Project*. SCH No. 2006091071. DOI Control No. FES-08-54. Prepared by Aspen Environmental Group. October 2008. <http://www.cpuc.ca.gov/environment/info/aspensunrise/toc-feir.htm>.
- CPUC and BLM. 2010. *Final Environmental Impact Report/Environmental Impact Statement East County Substation, Tule Wind, and Energia Sierra Juarez Gen-Tie Projects*. Prepared by Dudek. Encinitas, California: Dudek. October 2011. http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ECO_Final_EIR-EIS.htm#VOLUMES 1 and 2: Revised Draft EIR/EIS.
- Forest Service (U.S. Forest Service).1982. *Comprehensive Management Plan for the Pacific Crest National Scenic Trail*. January 1982.
- Forest Service. 2005a. *Southern California National Forests Land Management Plan – Part 2 Cleveland National Forest Strategy*. September 2005.
- Forest Service. 2005b. *Southern California National Forests Land Management Plan – Part I Southern California National Forest Vision*. September 2005.

- Forest Service. 2005c. *Southern California National Forests Land Management Plan – Part 3 Design Criteria for the Southern California National Forests*. September 2005.
- Forest Service. 2006. “Chapter 2320, Wilderness Management.” In *Forest Service Manual 2300 – Recreation, Wilderness, and Related Resource Management*. December 26, 2006.
- Forest Service. 2007. *Forest Service Strategic Plan FY 2007–2012*. Forest Service FS-880. July 2007. <http://www.fs.fed.us/publications/strategic/fs-sp-fy07-12.pdf>,
- Forest Service. 2013. *Final Supplemental Environmental Impact Statement: Southern California National Forests Land Management Plan Amendment*. November 2013. Accessed July 30, 2014.
http://a123.g.akamai.net/7/123/11558/abc123/forestservic.download.akamai.com/11558/www/nepa/76364_FSPLT3_1462300.pdf.
- Naval Base Coronado. 2013. “Welcome to Naval Base Coronado.” Accessed June 3, 2013.
http://www.cnmc.navy.mil/regions/cnrsw/installations/navbase_coronado.html.
- Schmidt, S. 2012. “State weighs future of Cuyamaca Rancho Park,” *San Diego Union Tribune*, August 25, 2012. Accessed March 7, 2013. <http://www.utsandiego.com/news/2012/aug/25/state-weighing-future-of-cuyamaca-state-park/?print&page=all>.
- SDG&E (San Diego Gas & Electric). 2012. *Proponent’s Environmental Assessment for the TL6931 Fire Hardening /Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.
- SDG&E. 2013. *SDG&E Revised Plan of Development. San Diego Gas & Electric Company, Master Special Use Permit, Cleveland National Forest Orange And San Diego Counties, California*. April 2013. Accessed March 2014. Prepared by Insignia Environmental.
[http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20\(04-19-13S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20(04-19-13S).pdf).





D.11 Noise

This section addresses potential noise impacts resulting from construction and operation of the proposed power line replacement projects along with the operation and maintenance activities proposed for authorization under the MSUP. Section D.11.1 provides a description of the existing noise setting/affected environmental, and the applicable noise ordinances and limitations are introduced in Section D.11.2. An analysis of impacts/environmental effects of SDG&E's proposed project and discussion of mitigation are provided in Section D.11.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.11.4, and Section D.11.5 discusses the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are described in Section D.11.6. Section D.11.7 discusses the No Action Alternative, and Section D.11.8 describes the No Project Alternative. Section D.11.9 provides mitigation monitoring, compliance, and reporting information. Section D.11.10 addresses residual effects of the project, and Section D.11.11 lists the references cited in this section.

D.11.1 Environmental Setting/Affected Environment

This section provides a description of ambient noise levels and sensitive noise receptors near the various components of SDG&E's proposed projects.

Methodology and Assumptions

The existing SDG&E electric facilities (power lines, access roads, and other facilities) to be covered under the proposed MSUP are located within the Trabuco, Palomar, and Descanso ranger districts within the Cleveland National Forest (CNF) within southwestern Orange County and southeastern San Diego County, with the majority of the study area including all of the proposed power line replacement projects located within and surrounding the Palomar and Descanso ranger districts in San Diego County. These existing facilities are currently operating and routinely maintained and repaired as necessary. The noise impacts associated with these past actions are part of the baseline for the analysis of SDG&E's proposed project and alternatives.

Ambient noise data and baseline information included in this section is based on information from the *Cleveland National Forest Electric Safety and Reliability Project Technical Noise Study Report* prepared by Acentech in April 2012.

D.11.1.1 General Characteristics of Community Noise

To describe environmental noise and to assess project impacts on areas that are sensitive to community noise, a measurement scale that simulates human perception is customarily used. The basic terminology and concepts of noise are described in this section. Technical terms are defined in Table D.11-1.

Table D.11-1
Definitions of Technical Terms Related to Noise

Term	Definition
Ambient noise level	This is the composite of noise from all sources near and far; the normal or existing level of environmental noise at a given location.
A-weighted sound level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network; the A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Community noise equivalent level (CNEL)	CNEL is the average equivalent A-weighted sound level during a 24-hour day, and it is calculated by adding 5 dB to sound levels in the evening (7 p.m. to 10 p.m.) and adding 10 dB to sound levels in the night (10:00 p.m. to 7:00 a.m.).
Decibel (dB)	This is a unit for measuring sound pressure level equal to 10 times the logarithm to the base 10 of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micropascals.
Equivalent noise level (L_{eq})	This is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is designed to average all loud and quiet sound levels occurring over a time period.

Sound (noise) levels are measured in decibels (dB). Table D.11-2 depicts common sound levels for various noise sources. Community noise levels are measured in terms of A-weighted sound level. The A-weighted scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria.

Table D.11-2
Typical Sound Levels Measured in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet flyover at 1,000 feet		
	— 100 —	
Gas lawnmower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		

Table D.11-2
Typical Sound Levels Measured in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2009, p. 2-21.

People are generally more sensitive and annoyed by noise during the evening and nighttime. Thus, another noise descriptor used in community noise assessments, the community noise equivalent level (CNEL), was introduced. The CNEL scale represents a time-weighted 24-hour average noise level based on the A-weighted sound level. CNEL accounts for the increased noise sensitivity during the evening (7 p.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.) by adding 5 dB and 10 dB, respectively, to the average sound levels occurring during these hours. Another noise descriptor, termed the day–night average sound level (L_{dn}), is also used. The L_{dn} is similar to CNEL except there is no penalty for the noise level occurring during the evening hours.

Human activities cause community noise levels to be widely variable over time. For simplicity, sound levels are usually best represented by an equivalent level over a given time period (L_{eq}). The L_{eq} , or equivalent sound level, is a single value (in dBA) for any desired duration, which includes all of the time-varying sound energy in the measurement period, usually 1 hour.

Community noise levels are usually closely related to the intensity of nearby human activity. Noise levels are generally considered low when ambient levels are below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the L_{dn} noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, L_{dn} is more likely to be around 50 or 60 dBA. Levels around 75 dBA are more common in busy urban areas, and levels up to 85 dBA occur near major freeways and airports. Although people often accept the higher levels associated with very noisy urban residential and residential–commercial zones, they nevertheless are considered adverse to public health.

D.11.1.2 Noise Environment and Sensitive Noise Receptors in the Project Area

The existing noise environment in the study area is dominated by noises associated with the rural, public, semipublic, and agricultural land uses. Traffic along freeways, highways, and local

roadways also contributes to the existing noise environment. Due to the various land uses and noise sources, different levels of noise are present within the study area. Ambient noise levels tend to be lowest in the open, undeveloped areas that comprise much of the study area. Noise levels are typically the highest near the major transportation facilities, including Interstate 8 (I-8), and State Routes 76 and 78 (SR-76 and SR-78).

The existing noise environment also includes noise associated with operations and maintenance activities required to maintain the existing transmission lines. Ongoing existing operations and maintenance activities that generate noise in the study area include: the use of four-wheel-drive vehicles, helicopters, boom trucks, and line trucks to access the transmission lines and poles; washing activities; tree and vegetation trimming activities; access road maintenance; and hardware replacement and repair work.

The existing transmission lines generate corona noise, which is also considered an existing operational noise. Corona noise is the audible noise created when energy dissipates from electrical conductive equipment. As energy dissipates from electrical conductive equipment, some of the energy causes local pressure changes that result in audible noise, or in radio or television interference. The audible corona noise generated by corona discharge is characterized as a hissing or crackling sound that may be accompanied by a hum. Slight irregularities or water droplets on the conductor and/or insulator surface accentuate the electric field strength near the conductor surface, making corona discharge and the associated audible noise more likely. Therefore, corona noise from transmission lines is often pronounced after wet weather, when the transmission lines are wet and the noise from the weather event is over. The corona noise from the existing single-circuit 69-kilovolt (kV) power line ranges from 9 dBA L_{eq} , under typical conditions, to 24 L_{eq} dBA, under worst-case conditions (SDG&E 2013a).

Sensitive noise receptors, such as residential uses, where excessive noise levels would be considered an annoyance are distributed throughout the project area. A description of noise-sensitive receptors and the existing noise environment associated with the proposed power line replacement projects is presented below. Existing noise measurements were taken by Acentech at various locations that were selected to be representative of existing conditions along the proposed power line replacement projects. Over a 25-hour period, 1-hour L_{eq} noise measurements were taken at each location using one of several noise monitors: a Larson Davis Model 870, Larson Davis Model 820, or a Rion Model NL 31 (Acentech 2012).

TL682

The Denver C. Fox Outdoor Education School, located on Forest Service lands at 24102 Highway 76, Santa Ysabel; the La Jolla Indian Campground located at the La Jolla Indian Reservation; and 96 residential properties are considered to be sensitive noise receptors along

the TL682 alignment (for more information see Section D.10, Land Use). Noise measurements were made at two locations along TL682, locations S and T, as shown on Figure D.11-1.

Location S was within the San Luis Rey Picnic Area, 70 feet south of SR-76. Noise measurements were taken on September 6 and September 7, 2011. Sources of ambient noise included local traffic on SR-76, aircraft, and natural sounds (such as cicada during nighttime periods). The average daytime L_{eq} was 48 dBA, and the CNEL was 67 dBA.

Location T was within the La Jolla Indian Reservation, approximately 1,150 feet south of the SR-76/Poomacha Road intersection. Noise measurements were taken on September 6 and September 7, 2011. Sources of ambient noise included traffic on SR-76, residential activities, and natural sounds. The average daytime L_{eq} was 41 dBA, and the CNEL was 48 dBA.

TL626

The Stallion Oaks Campground, located off Boulder Creek Road, and 66 residential properties are considered to be sensitive noise receptors along the TL626 alignment (for more information see Section D.10, Land Use). Noise measurements were made at three locations along TL626, locations M, N, and U, as shown on Figure D.11-1.

Location M was in Inaja Memorial Park, approximately 180 feet south of Old Julian Road (SR-78/SR-79), and approximately 1,100 feet east of TL626. Noise measurements at location M were taken on August 31 and September 1, 2011. Sources of ambient noise at this location included traffic on Old Julian Road (SR-78/SR-79) located approximately 180 feet north of the measurement location, aircraft, and natural sounds (nighttime cicadas). The average daytime L_{eq} at location M was 52 dBA and the CNEL was 64 dBA.

Location N was along Burrell Way, south of the Descanso Trail intersection, and approximately 625 feet north of Boulder Creek Road. Noise measurements were taken at location N on September 1 and September 2, 2011. Sources of ambient noise at this location included local traffic, aircraft, and natural sounds (nighttime cicadas). The average daytime noise at location N was 42 dBA L_{eq} , and the CNEL was 53 dBA.

Location U was approximately 200 feet west of Boulder Creek Road, and 440 feet northwest of the intersection with Sherilton Valley Road in the CNF. Noise measurements at this location were taken on September 1 and 2, 2011. Sources of ambient noise included local traffic, aircraft, and natural sounds (nighttime cicadas). The average daytime L_{eq} was 37 dBA, and the CNEL was 44 dBA.

TL625

There are 147 residential properties that are considered to be sensitive noise receptors along the TL625 alignment (for more information see Section D.10, Land Use). Noise measurements along TL625 were made at three locations: A, B, and E, as shown on Figure D.11-1.

Location A noise measurements were taken at 19605 Japatul Road on August 31 and September 1, 2011. Ambient noise included traffic on Japatul Road located approximately 1,025 feet north of the measurement location, local ranch activity, aircraft, and natural sounds. The average daytime L_{eq} was 41 dBA, and the CNEL was 44 dBA.

Location B is approximately 2,375 feet southwest of the intersection between Japatul Road/Carveacre Road and 7,170 feet west of Lyons Valley Road on Forest Service-administered land. Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise sources included traffic on Carveacre Road and Japatul Road located approximately 1,025 feet north of the measurement location, aircraft, and natural sounds. The average daytime L_{eq} was 44 dBA, and the CNEL was 45 dBA.

Location E was at 22779 Japatul Valley Road, approximately 875 feet east of Japatul Valley Road where TL625 crosses Illahee Drive. Noise measurements were taken at this location between September 2 and 6, 2011, and ambient noise sources included traffic on Japatul Valley Road located approximately 1,025 feet north of the measurement location, aircraft, and natural sounds (nighttime cicadas). The average daytime L_{eq} was 42 dBA, and the CNEL was 56 dBA.

TL629

The Descanso Elementary School (located at 24842 Viejas Boulevard, Descanso), Pine Valley Elementary School (located at 7454 Pine Boulevard, Pine Valley), the Lake Morena County Park Campground, the Boulder Oaks Campground (located west of Old Highway 80), and 461 residential properties are considered to be sensitive noise receptors along the TL629 alignment (for more information see Section D.10, Land Use). Noise measurements were made at four locations along TL629—locations C, J, K, and L—as shown on Figure D.11-1.

Location C was at the Boulder Oaks Campground approximately 1065 feet south of the Campground entrance, and 450 feet southwest of Old Highway 80. Noise measurements were taken at this location between August 31 and September 1, 2011, and ambient noise sources included traffic on I-8 located approximately 1,000 feet east of the measurement location, aircraft, and natural sounds. The average daytime L_{eq} was 44 dBA, and the CNEL was 52 dBA.

Location J was at the intersection of Meadow Lane/Tanglewood Drive, approximately 55 feet north of Tanglewood Drive in Descanso. Noise measurements were taken at this location on June 9 and 10, 2011, and ambient noise sources included local traffic, aircraft, and natural sounds. The average daytime L_{eq} was 53 dBA, and the CNEL was 53 dBA.

Location K was at 27408 Old Highway 80, approximately 55 feet north of Tanglewood Drive in Guatay. Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise included local traffic on Old Highway 80 approximately 325 feet south, barnyard animals within 50 feet north, gardening activities, and natural sounds. The average daytime L_{eq} was 48 dBA, and the CNEL was 53 dBA.

Location L was at TL629 Pole Z41000, 230 feet south of Cameron Truck Trail and 2,950 feet east of Beckman Springs Road. Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise sources included local traffic on local roads, ranching activities, and natural sounds. The average daytime L_{eq} was 45 dBA, and the CNEL was 51 dBA.

TL6923

There are 16 residential properties that are considered to be sensitive noise receptors along the TL6923 alignment (for more information see Section D.10, Land Use). Noise measurements were made at two locations along TL6923—locations F and F’—as shown on Figure D.11-1.

Location F was at 1875 Lake Morena Drive, approximately 580 feet east of Lake Morena Drive and near the TL6923 alignment. Noise measurements were taken at this location on June 9 and 10, 2011, and ambient noise sources included local traffic on Lake Morena Drive, aircraft (helicopter activity was observed 4,000 to 5,000 feet west of the site), and natural sounds. The average daytime L_{eq} was 55 dBA, and the CNEL was 52 dBA.

Location F’ was at 1704 Lake Morena Drive, approximately 250 feet west of Buckman Springs Road, 375 feet south of Lake Morena Drive, 500 feet north of Campo Elementary School, and 3,000 feet south of Cameron Substation. Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise sources included local traffic on Lake Morena Drive and Beckman Springs Road, aircraft, and natural sounds. The average daytime L_{eq} was 47 dBA, and the CNEL was 52 dBA.

C79

The Paso Picacho Campground (within Cuyamaca Rancho State Park) is considered to be a sensitive noise receptor along the C79 alignment (for more information see Section D.10, Land Use). Noise measurements were taken along C79 at one location, location P, which was on the

north side of Lookout Road, approximately 330 feet west of SR-79 and adjacent to Paso Picacho Campgrounds, Cuyamaca Rancho State Park (refer to Figure D.11-1). Noise measurements were taken at this location on September 7 and 8, 2011, and ambient noise sources included local traffic on SR-79, activity associated with the campgrounds and the nearby Cuyamaca Fire Station, aircraft, and natural sounds (nighttime cicada). The average daytime L_{eq} was 44 dBA, and the CNEL was 66 dBA.

C78

There are six residential properties that are considered to be sensitive noise receptors along the C78 alignment (for more information see Section D.10, Land Use). Access to the line was not provided by the Viejas Tribal Council, and no noise measurements were made for this distribution line.

C157

Sensitive noise receptors along the C157 alignment are Camp Barrett, located at 21077 Lyons Valley Road, and one residential property (for more information see Section D.10, Land Use). Noise measurements were taken along C157 at one location—location D—which was along the northern side of Sky Valley Road, approximately 925 feet south of where C157 crosses over Barrett Lake (refer to Figure D.11-1). Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise sources included aircraft and natural sounds. The average daytime L_{eq} was 40 dBA, and the CNEL was 46 dBA.

C442

There are 39 residential properties are considered to be sensitive noise receptors along the C442 alignment (for more information see Section D.10, Land Use). Noise measurements were taken along C442 at locations O and R as shown on Figure D.11-1.

Location O was approximately 880 feet south of eastbound I-8, within the CNF. Noise measurements were taken at this location on September 2 and 6, 2011, and ambient noise sources at this remote location included aircraft and natural sounds (wind in the trees and nighttime cicada). The average daytime L_{eq} was 35 dBA, and the CNEL was 58 dBA.

Location R was approximately 2.7 miles north of I-8 and 115 feet east of Pine Creek Road. Noise measurements were taken at this location on September 7 and 8, 2011, and ambient noise at this remote location included local traffic and natural sounds (wind in the trees and nighttime cicada). The average daytime L_{eq} was 40 dBA, and the CNEL was 54 dBA.

C440

The Burnt Rancheria Campground, located off of Sunrise Highway, the Laguna Campground located at 10678 Sunrise Highway, and 158 residential properties are considered to be sensitive noise receptors along the C440 alignment (for more information see Section D.10, Land Use). Noise measurements were taken along C440 at locations H and I as shown on Figure D.11-1.

Location H was approximately 320 feet east of Morris Ranch Road and 2,980 feet south of San Diego County Road S1 (Sunrise Highway). Noise measurements were taken at this location between September 2 and 6 2011, and ambient noise at this remote location included aircraft and natural sounds (wind in the trees and nighttime cicada). The average daytime L_{eq} was 45 dBA, and the CNEL was 58 dBA.

Location I was at the entrance to Laguna Campground south of Laguna Meadows Road, Laguna Recreation Area, approximately 885 feet southwest of San Diego County Road S1 (Sunrise Highway). Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise at this remote location included local traffic, aircraft and natural sounds. The average daytime L_{eq} was 44 dBA, and the CNEL was 42 dBA.

C449

The Mountain Empire High School, located at 3305 Buckman Springs Road in Pine Valley; the Lake Morena County Park Campground, located off of Buckman Springs Road; the Boulder Oaks Campground, located west of Old Highway 80; and two residential properties are considered to be sensitive noise receptors along the C449 alignment (for more information see Section D.10, Land Use). Noise measurements were taken at this location on June 8 and 9, 2011, and ambient noise at this remote location included aircraft, local traffic on Morena Stokes Valley Road, activities within the Morena Conservation Camp, and natural sounds. The average daytime L_{eq} was 42 dBA, and the CNEL was 47 dBA.

D.11.2 Applicable Regulations, Plans, and Standards

Environmental noise is typically regulated by local governments. The State of California requires local jurisdictions to regulate environmental noise in their General Plan document, and in 1974, the U.S. Environmental Protection Agency (EPA) published guidelines on recommended maximum noise levels to protect public health and welfare. The following discussion summarizes the federal and state recommendations and the local requirements as they relate to environmental noise.

D.11.2.1 Federal Regulations

The EPA has indicated that residential noise exposure of 55 dBA to 65 dBA is acceptable when analyzing land use compatibility (EPA 1981); however, these guidelines are not regulatory. With regard to noise exposure and workers, the federal Occupational Safety and Health Administration (OSHA) establishes regulations to safeguard the hearing of workers exposed to occupational noise (29 CFR 1910.95). OSHA specifies that sustained noise over 85 dBA (8-hour time-weighted average) can be a threat to workers' hearing, and if worker exposure exceeds this amount, the employer shall develop and implement a monitoring plan (29 CFR 1910.95 (d) (1)).

D.11.2.2 State Laws and Regulations

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

As with federal standards, State of California regulations (California Noise Exposure Regulations and 8 CCR 5095) address worker exposure noise levels. These regulations limit worker exposure to noise levels of 85 dB or lower over an 8-hour period. The State of California has not established noise levels for various non-work-related environments.

D.11.2.3 Regional Policies, Plans, and Regulations

San Diego County Code of Regulatory Ordinances Title 3, Division 6, Chapter 4, Sections 36.401–36.435, Noise Ordinance

The Noise Ordinance establishes prohibitions for disturbing, excessive, or offensive noise as well as provisions such as sound level limits for the purpose of securing and promoting the public health, comfort, safety, peace, and quiet for its citizens. Planned compliance with sound level limits and other specific parts of the ordinance allows presumption that the noise is not disturbing, excessive, or offensive. Limits are specified depending on the zoning placed on a property (e.g., varying densities and intensities of residential, industrial, and commercial zones). Where two adjacent properties have different zones, the sound level limit at a location on a boundary between two properties is the

arithmetic mean of the respective limits for the two zones, except for extractive industries. The 1-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 dBA at the property line regardless of the zone in which the extractive industry is located. It is unlawful for any person to cause or allow the creation of any noise that exceeds the applicable limits of the Noise Ordinance at any point on or beyond the boundaries of the property on which the sound is produced.

Section 36.404 of the County Noise Ordinance contains sound level limits specific to receiving land uses. Sound level limits are in terms of a 1-hour average sound level. The allowable noise limits depend upon the County’s zoning district and time of day. SDG&E’s proposed project would be located in any zone within the County. Table D.11-3 lists the sound level limits for the County.

**Table D.11-3
San Diego County Noise Ordinance Sound Level Limits**

Zone	Applicable Limit 1-Hour Average Sound Level (dB)		
	7 a.m. to 7 p.m.	7 p.m. to 10 p.m.	10 p.m. to 7 a.m.
(1) RS, RD, RR, RHM, A70, A72, S80, S81, S87, S90, S92, RV, and RU with a density of less than 11 dwelling units per acre	50	50	45
(2) RRO, RC, RM, C30, S86, V5 and RV and RU with a density of 11 or more dwelling units per acre	55	55	50
(3) S94, V4, all other commercial zones.	60	60	55
(4) V1, V2	60	55	see below
V1	60	55	55
V2	60	55	50
V3	70	70	65
(5) M50, M52, M54	70	70	70
(6) S82, M56 and M58	75	75	75
(7) S88 (see note 4 below)			

Source: County of San Diego 2009

Notes:

- 1 If the measured ambient level exceeds the applicable limit noted in the table, the allowable 1-hour average sound level will be the ambient noise level. The ambient noise level will be measured when the alleged noise violation source is not operating.
- 2 The sound-level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts; provided, however, that the 1-hour average sound-level limit applicable to extractive industries, including but not limited to borrow pits and mines, will be 75 dB at the property line, regardless of the zone where the extractive industry is actually located.
- 3 Fixed-location, public utility distribution, or transmission facilities located on or adjacent to a property line shall be subject to the noise-level limits of this section, measured at or beyond 6 feet from the boundary of the easement upon which the equipment is located.
- 4 S88 zones are Specific Planning Areas, which allow different uses. The sound level limits present in Table D.11-3 that apply in an S88 zone depend on the use being made of the property. The limits in Table 3.9-2, subsection (1) apply to a property with a residential, agricultural, or civic use. The limits in subsection (3) apply to a property with a commercial use. The limits in subsection (5) apply to a property with an industrial use that would only be allowed in an M50, M52, or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

Section 36.408 of the County Noise Ordinance sets limits on the time of day and days of the week that construction can occur, as well as setting noise limits for construction activities. In summary, the ordinance prohibits operating construction equipment on the following days and times:

- Mondays through Saturdays except between the hours of 7:00 a.m. and 7:00 p.m.
- Sundays and days appointed by the president, governor, or board of supervisors for a public fast, Thanksgiving, or other holiday.

In addition, the code requires that between the hours of 7:00 a.m. and 7:00 p.m., no equipment shall be operated so as to cause an 8-hour average construction noise level in excess of 75 dBA when measured at the boundary line of the property where the noise source is located, or on any occupied property where the noise is being received. In addition to the general limitations on sound levels discussed above, the following additional maximum sound level limitations (as shown in Table D.11-4) shall apply to impulsive noise from construction equipment, per County Noise Ordinance Section 36.409.

Table D.11-4
Maximum Sound Level (Impulsive) Measured

Occupied Property Use	Decibels (dBA)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

Source: County of San Diego 2011, County Noise Ordinance Section 36.409

Note: The maximum sound level limitations shall apply to impulsive noise from construction equipment when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period.

County Guidelines for Noise Sensitive Uses Affected by Airborne Noise

The County of San Diego Department of Planning and Land Use (2009) has published guidelines for determining the significance of noise-sensitive uses affected by airborne noise. The guidelines consider a significant impact would occur if a project were to cause the exterior noise to exceed 60 dB (CNEL), or cause an increase of 10 dB (CNEL) over preexisting noise levels at outdoor living areas or private usable open space.

County Guidelines for Vibration and Groundborne Noise Impacts

The County of San Diego Department of Planning and Land Use (2009a) has also published guidelines for determining the significance of groundborne vibration and noise impacts for use during the preparation of CEQA documents. Vibration is considered significant if project implementation will expose specific uses (organized into three categories) to groundborne vibration or noise equal to or in excess of levels determined by the Federal Transit

Administration’s (FTA’s) Transit Noise and Vibration Impact Assessment (FTA 2006). County guidelines are provided in Table D.11.5.

**Table D.11-5
Guidelines for Determining the Significance of
Groundborne Vibration and Groundborne Noise Impacts**

Land Use Category ¹	Groundborne Vibration Impact Levels (inches/second root mean square)		Groundborne Noise Impact Level (dB re 20 micropascals)	
	Frequent Events ²	Occasional or Infrequent Events ³	Frequent Events ¹	Occasional or Infrequent Events ²
Category 1: Buildings where low ambient vibration is essential for interior operations (research and manufacturing facilities with special vibration constraints)	0.0018 ⁴	0.0018 ⁴	Not Applicable (N/A) ^{5,6}	N/A ^{4,5}
Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, and other sleeping facilities)	0.0040	0.010	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, and quiet offices)	0.0056	0.014	40 dBA	48 dBA

Source: County of San Diego 2009

Notes:

- ¹ “Frequent Events” is defined as more than 70 vibration events per day.
- ² “Infrequent Events” is defined as fewer than 70 vibration events per day.
- ³ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air conditioning (HVAC) systems and stiffened floors.
- ⁴ Vibration-sensitive equipment is not sensitive to groundborne noise.
- ⁵ There are some buildings, such as concert halls, TV and recording studios, and theaters that can be very sensitive to vibration and noise, but do not fit into any of the three categories.
- ⁶ For categories 2 and 3 with occupied facilities, isolated events such as blasting are significant when the peak particle velocity (ppv) exceeds 1 inch per second. Non-transportation vibration sources such as impact pile drivers or hydraulic breakers are significant when their ppv exceeds 0.1 inch per second. More specific criteria for structures and potential annoyance were developed by the California Department of Transportation (Caltrans) (2004) and would be used to evaluate these continuous or transient sources in the County of San Diego.

D.11.3 Environmental Effects

D.11.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

The CEQA criteria and guidelines described as follows are also used as indicators of adverse effect under NEPA. Significance of noise impacts depends on whether the project would increase noise levels above the existing ambient levels by introducing new sources of noise. The following significance criteria are based on the CEQA checklist identified in Appendix G of the CEQA Guidelines. Under CEQA, noise impacts would be considered significant if SDG&E’s proposed project would result in:

- Conflict with applicable noise restrictions or standards imposed by regulatory agencies

- Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels
- A substantial permanent increase in ambient noise levels (more than 5 dBA) above levels existing without the project at sensitive receptor locations
- A substantial temporary or periodic increase in ambient noise levels above levels existing without the project at sensitive receptor locations.

Use of Noise Thresholds

Given that environmental noise levels vary widely over time, a 3 dBA change is the minimum change in environmental noise that is perceptible and recognizable by the human ear. An increase in day-night environmental noise levels of more than 5 dBA (L_{dn} or CNEL) is considered to be a substantial increase and a significant impact. Intermittent noise sources are temporary or periodic, and they may also cause a significant impact over shorter durations if increases over 5 dBA could occur.

Use of Vibration Thresholds

No vibration-sensitive land uses (e.g., high-precision manufacturing facilities or research facilities with optical and electron microscopes) were identified during project area surveys. As such, the significance threshold for “excessive” ground-borne vibration depends on whether a nuisance, annoyance, or physical damage to any structure could occur.

D.11.3.2 Applicant Proposed Measures

SDG&E has proposed Applicant Proposed Measures (APMs) NOI-01 through NOI-10 which would be implemented as part of SDG&E’s proposed project to reduce impacts associated with noise (see Section B.7 of this EIR/EIS).

D.11.3.3 Direct and Indirect Effects

Impact NOI-1 Disturb sensitive receptors and violate local rules, standards, and/or ordinances due to construction noise

Construction activities associated with the proposed power line replacement projects would result in temporary increases in noise levels in the active construction work areas. Most of the construction activities would utilize conventional construction equipment associated with such projects (e.g., trucks of various types, bulldozer, grader); however, helicopters would be used to transport materials and personnel to work areas not accessible by truck, as well as set poles and string conductors to those work areas. Construction activities would occur at individual pole site

sites and undergrounding areas and move along the various alignments linearly and therefore would be short-term at any given location. Total construction activities associated with SDG&E’s proposed project would occur over a 5-year period.

Conventional Construction Methods

The project’s conventional construction activities would temporarily increase local noise levels in the vicinity of the project alignment. Due to the presence of rural residences in SDG&E’s proposed project vicinity, the residential threshold was utilized to determine construction noise impacts to this sensitive use. As discussed above, most of the construction activities would utilize conventional construction equipment associated with such projects (e.g., trucks of various types, bulldozer, grader). Table D.11-6 below lists the maximum noise levels of the various conventional construction activities, as well as the distance at which the San Diego County construction noise impact threshold would be exceeded for each of the construction activities

Table D.11-6
Construction Noise from Conventional Activities

Activity	Maximum L_{eq} at 50 feet	Distance to $L_{eq}(8) = 75$ dBA, feet
Improve Access Roads	85 dBA L_{eq}	<25 feet
Construct 1 Micropile Foundation (Truck set)*	86 dBA L_{eq}	180 feet
Install 1 Micropile Pole (Truck set)	79 dBA L_{eq}	80 feet
Construct 1 Direct-Bury Pole (Truck set)*	86 dBA L_{eq}	190 feet
String Conductor 1 phase	81 dBA L_{eq}	100 feet
Restore right-of-way	85 dBA L_{eq}	150 feet
Pole Removal Ground Access	66 dBA L_{eq}	<25 feet
Underground Conductor	88 dBA L_{eq}	150 feet

Source: Acentech 2012.

* Through the maximum noise level anticipated during construction of one micropile foundation is the same as the maximum noise level anticipated during construction of one direct-bury pole, the mix of equipment to be used differs as well as the duration of the equipment to be used. Thus, the 8-hour average noise level is different, and the distance at which the 75 dBA $L_{eq}(8)$ construction noise standard is exceeded is different.

As shown in Table D.11-6, the County’s 8-hour construction noise standard of 75 dB is expected to be exceeded at different distances from the construction equipment depending on the type of construction equipment needed and the duration the equipment is expected to be operated during construction. The property lines of the nearest residences would be directly adjacent to the proposed alignment, similar to existing conditions. At this location, the 8-hour average construction sound level could exceed the 75 dBA threshold at the distances listed in Table D.11-6. Implementation of Mitigation Measure (MM) MM NOI-1 would mitigate temporary construction noise impacts by requiring SDG&E to implement appropriate noise reduction measures such as portable noise barriers or relocation of residents, if noise standards are exceeded.

MM NOI-1 In the event noise levels during construction activities are expected to exceed an 8-hour L_{eq} of 75 dBA at the nearest property line or within 190 feet of the existing and proposed project alignment where noise-sensitive areas are located, San Diego Gas & Electric (SDG&E) shall implement noise reduction measures to reduce noise levels to below 75 dBA. Measures to be implemented include: (1) portable noise barriers erected temporarily to reduce noise impacts at specific locations; or (2) if noise barriers would not reduce levels to below 75 dBA, depending on the location of residences and the level of construction noise, SDG&E shall offer to relocate affected residents until the impact has been determined to not be adverse.

Implementation of MM NOI-1 supersedes Applicant Proposed Measures APM NOI-5 and APM NOI-07 (see Section B, Table B-11 of this EIR/EIS). SDG&E also will implement APM NOI-01 through APM-NOI-04 which would also reduce impacts from noise generated at construction sites by notifying property owners of the construction schedule, positioning equipment away from residences to the extent possible, ensuring all equipment is maintained in accordance with the manufacturer's recommendations, and turning backup alarms down to the lowest setting whenever possible.

With implementation of SDG&E's proposed APM NOI-01 through APM NOI-04, and MM NOI-1, adverse and significant noise generated by construction activities conducted during daytime hours (between 7 a.m. and 7 p.m.) Monday through Saturday would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

Helicopter Use

The anticipated average helicopter use per day includes flying helicopters from a nearby airfield, such as Gillespie Field in El Cajon, to a laydown yard/staging area (fly yard/staging area). Fly yards/staging areas would be located along TL682 (two such yards would be located along this line) in the Pauma Valley/Lake Henshaw community areas, TL625 (six) in the Alpine community area (two on CNF managed lands and four on private land), TL629 (three) in the Pine Valley community area, and C79 (one) in the Descanso community area. From the laydown yard/staging area, the helicopter will pick up materials, poles, or personnel as required, then fly directly to the work area. Once at the work area, the helicopter will hover while delivering materials or assisting in pole-setting. Average flight times from Gillespie Field to the proposed power line replacement projects' staging areas are anticipated to require approximately 15 minutes of flight time per trip; typical hovering time at each work area is anticipated to be 2 to 5 minutes during pole setting, and 2 to 3 minutes when delivering materials. Helicopter-set poles typically require significantly less than 1 day of helicopter use per pole; for SDG&E's proposed

project, an average of approximately 10 poles per day are anticipated to be set using helicopters over an 8-hour period, requiring 2 to 5 minutes per work zone.

It is anticipated that approximately 514 poles will require helicopter setting over the 5-year construction period. Assuming an average of 10 poles set by helicopter per day, approximately 52, 8-hour days of helicopter flights—including one roundtrip flight from Gillespie Field and 10 round-trip flights to pole work areas each day—would be conducted for SDG&E's proposed project, resulting in a total of approximately 566 total round-trip helicopter flights over the 5-year construction period. A total of approximately 286 flight-hours over the 5-year construction period is anticipated. However, flight times may vary due to a number of factors, including local weather conditions, air traffic control requirements, and other unforeseen limitations on flight availability and regularity (SDG&E 2014).

Approximately three temporary helicopter fly yards within the CNF would be used for SDG&E's proposed project, and nine temporary helicopter fly yards outside the CNF would be used, as described in Table B-7 in Section B, Project Description. No helicopters would be stored at temporary fly yards overnight. Helicopters may be refueled at fly yards outside the CNF, if necessary. Approximately one of the three temporary helicopter fly yards within the CNF would be used for both helicopter landing and for equipment and material storage for SDG&E's proposed project. Approximately five of the nine temporary helicopter fly yards outside the CNF would be used for both helicopter landing and for equipment and material storage. Poles and steel cages for poured foundations would be assembled on site if there is adequate space at the work site or at the staging areas, then trucked to the job site or flown in and installed via helicopter. The fly yards would be accessed using existing access roads (SDG&E 2013b) and are shown in Figure D.11-1. (The detailed locations of the fly yards can be found in the Revised Plan of Development Attachment B, Detailed Route Maps (SDG&E 2013b).)

Helicopter noise is typically rated using the sound exposure level (SEL) at 500 feet above ground level during flyover or during approach and landing. When delivering equipment and materials and assisting with the installation and removal of poles and conductors, the helicopters are anticipated to operate at approximately 50 feet above ground level. In this instance, potential noise from helicopter operation is measured using L_{max} , which is the highest time-weighted sound level measured for the equipment at that height. Table D.11-7 presents the anticipated noise levels for the helicopters that are anticipated to be used during construction of SDG&E's proposed project at a flying height of 500 feet, as well as an operating height of 50 feet. During takeoff and approach, noise levels are anticipated to be approximately 3 to 8 dB higher than the L_{max} shown due to increased engine use during these times (SDG&E 2014).

**Table D.11-7
Helicopter Noise Levels**

Helicopter Type	SEL at 500 feet	Lmax at 50 feet
Erickson Air Crane	89	101
Hughes 500D	76	88
Kaman K-MAX	83	95
Bell 206L Long Ranger	81	93

Source: SDG&E 2014

Helicopter use would be compliant with all Federal Aviation Administration and Caltrans standards and regulations. In addition, SDG&E will also implement APM NOI-06 and APM NOI-09 which will limit the height that helicopters may fly over the entire project area when not landing or working at a site, and will ensure that SDG&E coordinates with San Diego County regarding flights occurring between 6:30 a.m. and 7:00 a.m. to avoid conflicts with the County noise ordinance. Due to the intermittent and temporary nature of helicopter use and the fact that the rest of the time construction would be carried out by ground crews, it is unlikely that noise levels would exceed the County threshold of 75 dB over an 8-hour period and therefore the CEQA threshold for determining a significant impact. Because there are no thresholds for determining whether a noise impact is significant under NEPA, the short-term disturbance to sensitive receptors caused by noise generated by helicopter use is considered to be a short-term adverse impact under NEPA.

To minimize disturbance due to noise generated by helicopter operations to nearby sensitive receptors, including residences, schools, and horses or other livestock, Mitigation Measure MM NOI-2 is provided. MM NOI-2 requires SDG&E to notify nearby sensitive receptors, including nearby residents, schools, and livestock facility owners, of scheduled helicopter use prior to flight operations.

MM NOI-2 At least 30 days before helicopter use and stringing operations are employed, San Diego Gas & Electric (SDG&E) shall prepare and submit a public notice mailer to the California Public Utilities Commission for approval. The public notice mailer shall be prepared and mailed no less than 7 days prior to helicopter use and stringing operations along the approved project alignment. SDG&E shall notify landowners, residents, schools, livestock facility owners, and CNF offices responsible for managing recreation areas within 590 feet in areas of fly yards and pole locations where helicopters will be used during construction to provide adequate notice of potential helicopter and/or stringing activity within the project vicinity. If construction is delayed for more than 7 days, an additional notice shall

be mailed to discuss the status and schedule of helicopter use and stringing operations.

Implementation of MM NOI-1, APM NOI-06, and APM NOI-09, would ensure that the short-term and intermittent impacts from noise generated by helicopters throughout the project would be less than significant with mitigation under CEQA (Class II) and under NEPA would minimize disturbance to sensitive receptors.

Blasting

Blasting may be required if crews encounter rock while digging. Should blasting be required during construction, it would only occur once per day for a short period of time. Though generally resulting in elevated noise levels at the time the blasting is performed, blasting would actually reduce overall construction time required at each pole site. In the event that blasting is needed, Mitigation Measure MM NOI-3, which supersedes APM NOI-08, will be required that will ensure that SDG&E will prepare and implement a blasting plan consistent with SDG&E's blasting guidelines to reduce noise and vibration impacts to nearby sensitive receptors.

MM NOI-3 In the unlikely event that rock blasting is used during construction, SDG&E will prepare a blasting plan, that will include a noise and vibration calculation, and will be submitted to the California Public Utilities Commission and the County of San Diego for review before blasting at each site. Each blasting plan will be consistent with SDG&E's blasting guidelines to reduce noise and vibration impacts from blasting activities. The blasting contractor will be required to obtain a blasting permit and explosive permit per the San Diego County Regulatory Ordinances, and will ensure compliance with all relevant local, state, and federal regulations relating to blasting activities.

With implementation of MM NOI-3 adverse and significant impacts from noise generated by blasting activities throughout the project would be mitigated under NEPA, and would be less than significant with mitigation under CEQA (Class II).

Nighttime Construction

Construction activities will occur during the times established by the local ordinances (generally between 7 a.m. and 7 p.m. Monday through Saturday), with the exception of certain activities where nighttime and weekend construction activities are necessary, including, but not limited to, pulling of the conductor, which requires continuous operation or must be conducted during off-peak hours per agency requirements. Where construction activities would occur at night, Mitigation Measure MM NOI-4 would be required and would supersede SDG&E APM-NOI-10.

MM NOI-4 For any work that cannot occur during the allowable construction hours (between 7 a.m. and 7 p.m. Monday through Saturday), SDG&E will follow its established protocols and will provide advance notice by mail to all property owners within 300 feet of planned construction activities. The announcement will state the construction start date, anticipated completion date, and hours of construction. SDG&E will also communicate the exception to the CPUC and San Diego County in advance of conducting the work. If necessary, SDG&E will temporarily relocate residents occupying properties located less than 220 feet from construction activities on an as-needed basis for the duration of construction activities that would affect them.

With implementation of MM NOI-4, adverse and significant noise-related impacts from construction activities occurring at night or on Sundays would be mitigated under NEPA, and would be less than significant with mitigation under CEQA (Class II).

All Construction Activities

Although, as discussed above, project construction activities could temporarily exceed County of San Diego construction noise standards, implementation of MM NOI-01 through MM NOI-04, and proposed APMs NOI-01 through NOI-04, APM NOI-06, and APM NOI-09 would reduce noise impacts by ensuring compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, adverse and significant impacts due to construction noise to sensitive receptors would be mitigated under NEPA and under CEQA would be less than significant with mitigation implemented (Class II).

Impact NOI-2 Cause groundborne vibration due to construction activity

Human response thresholds for vibration is barely perceptible at 0.035 ppv. Table D.11-8 shows common equipment vibration levels at a distance of 50 feet, which is the location of the closest sensitive receptor to the project alignment.

Table D.11-8
Vibration Source Levels for Construction Equipment at 50 Feet

Equipment	ppv at 50 feet
Caisson Drill	0.031
Loaded Truck	0.027
Small Bulldozer	0.001

Source: FTA 2006

As shown, vibration levels for typical construction equipment would be below the barely perceptible response level at 50 feet. Therefore, impacts would be less than significant.

Additionally, as previously discussed under Impact NOI-1, blasting activities are not anticipated; however, should blasting be required during construction, such activities would only occur once per day for a short period of time. As noted above in footnote 6 to Table D.11-5, for residential and institution uses (such as schools), isolated events such as blasting can result in significant vibration impacts when the ppv exceeds 1 inch per second. Therefore, in the event that blasting is needed, Mitigation Measure MM NOI-3, which supersedes APM-NOI-08, will be required that will ensure that SDG&E will prepare and implement a blasting plan consistent with SDG&E's blasting guidelines to reduce noise and vibration impacts to nearby sensitive receptors. With implementation of MM NOI-3, adverse and significant groundborne vibration generated by blasting activities would be mitigated under NEPA, and would be less than significant with mitigation under CEQA (Class II).

Impact NOI-3 Permanent noise levels due to corona noise from operations of the transmission lines

The corona noise from the existing single-circuit 69 kV power line ranges from 9 dBA L_{eq} , under typical conditions, to 24 L_{eq} dBA, under worst-case conditions and is below the County's noise ordinance limits. SDG&E's proposed project would replace wood poles with steel poles along with reconductoring of new power lines. The increased corona-related noise associated with the proposed power line replacement projects will not be noticeable (Acentech 2012). Therefore, corona noise due to operation and maintenance of the proposed power line replacement projects along with the other SDG&E facilities proposed for authorization under the MSUP would not result in an adverse impact under NEPA, and under CEQA, impacts would be considered less than significant (Class III).

Impact NOI-4 Increase in ambient noise levels due to routine inspection and maintenance activities

Operation and maintenance of the proposed power line replacement projects along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, and other related ongoing maintenance tasks such as helicopter inspections, similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project. Some noise sensitive receptors may experience a periodic, temporary, short-term increase in noise due to these activities. Because noise generated during routine inspection and maintenance would be temporary and short-term, it is not anticipated to exceed the County's noise ordinance criteria at any one receptor location. As a result, noise from these operation and maintenance activities

would not result in an adverse impact under NEPA, and under CEQA, impacts would be less than significant (Class III).

D.11.4 Forest Service Proposed Actions

D.11.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Options 1 through 4 for the Forest Service proposed actions for TL626 would relocate a segment of the line toward the east of the existing alignment. The farthest relocation would take place approximately 2 miles to the east of the existing alignment. As this area is in the same geographic region as SDG&E's proposed project, the environmental setting for options 1 through 4 would be similar to that identified in Sections D.11.1 and D.11.2, except that four residences are located in the vicinity of these routes compared to none along the existing TL626.

Option 5, which would relocate a portion of TL626 around the Inaja Picnic area, is located in the same geographic region as SDG&E's proposed project, and therefore, the environmental setting would be similar to that identified in Sections D.11.1 and D.11.2.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts NOI-1 and NOI-2: This alternative would reroute a segment of TL626 to the east along a new undisturbed ROW approximately 5.5 miles (Option 1) or 5.6 miles (Option 2) (Figure B-4a). All other project components would remain the same. Construction noise would be greater than SDG&E's proposed project due to the increased activities required to develop a new and longer ROW along with the need to develop new access and would have a greater potential to affect sensitive receptors compared to the reconstruction of TL626 in place as proposed. Similar to SDG&E's proposed project, it is anticipated that these impacts would be reduced with implementation of MM NOI-01 through MM NOI-04, and APM NOI-1 through APM NOI-10 which would ensure compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, short-term adverse and significant Impacts NOI-1 and NOI-2 would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

Impacts NOI-3 and NOI-4: Impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. The corona-related noise (Impact NOI-3)

associated with options 1 and 2 would be similar to that described for SDG&E's proposed project, and therefore corona noise levels at the ROW are anticipated to be below the County's noise ordinance limits. Thus, the corona noise would not result in an adverse impact under NEPA, and under CEQA, impacts would be considered less than significant (Class III). In addition, routine inspections and maintenance activities (Impact NOI-4) that were not previously present in the new ROW would occur. As with SDG&E's proposed project, some noise sensitive receptors may experience a periodic, temporary, short-term increase in noise due to these activities. Because noise generated during routine inspection and maintenance would be temporary and short-term, it is not anticipated to exceed the County's noise ordinance criteria at any one receptor location. As such, noise associated with operations and maintenance activities would not result in an adverse impact under NEPA, and under CEQA, impacts would be less than significant (Class III).

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impacts NOI-1 and NOI-2: Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. The rerouted underground segment of Option 3a is approximately 11.4 miles long, and Option 3b is 6.3 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment (see Figure B-4b)). While construction noise would be greater than the project due to the increased trenching activities required along Boulder Creek Road and would have a greater potential to affect sensitive receptors, helicopter use required to rebuild portions of the overhead alignment would be reduced. All other project components would remain the same. With implementation of MM NOI-01 through MM NOI-04 and APM NOI-01 through NOI-10, construction noise impacts would be reduced by ensuring compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, short-term adverse and significant impacts due to construction noise to sensitive receptors would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

Impacts NOI-3 and NOI-4: Impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. As options 3a and 3b would underground a portion of TL626 in Boulder Creek Road, impact findings for Impact NOI-3 (corona noise) and Impact NOI-4 (routine inspections and maintenance) previously discussed in Section D.11.3.3 would be reduced to no impact.

Option 4: Overhead Relocation along Boulder Creek Road

Environmental Effects

Impacts NOI-1 through NOI-4: Option 4 would consist of relocating a segment of TL626 overhead along Boulder Creek Road to the Pine Hills Fire Station (approximately 7.5 miles) and then merging with proposed Options 1 or 2 overland alignments for approximately 2.1 miles to interconnect with pole Z213680 (see Figure B-4a). All other project components would remain the same. Construction noise would have a greater potential to affect sensitive receptors than the project due to the increased activities required to develop a longer ROW and closer proximity of sensitive receptors compared to the reconstruction of TL626 in place as proposed. Similar to SDG&E's proposed project, these short-term adverse and significant impacts are anticipated to be mitigated under NEPA through ensuring compliance with the County's noise ordinance through implementation of MM NOI-1 through MM NOI-4, and APM NOI-01 through NOI-10, and under CEQA these impacts would be less than significant with mitigation (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts NOI-1 through NOI-4: Option 5 would consist of relocating a portion of TL626 around the Inaja Picnic Area and as shown in Figure B-4c would consist of approximately 2,100 feet of relocated overhead alignment along with a 400-foot underground segment located within an existing parking lot. All other project components would remain the same. Construction and operational impacts related to noise and vibration would essentially be the same for the relocation of TL626 under Option 5 as described in Section D.11.3.3 for SDG&E's proposed project. Due to the undeveloped nature in the vicinity of the affected portion of TL626 proposed under this alternative, there would not be a substantial change to the baseline condition including the presence of sensitive receptors that could be exposed to noise impacts. Therefore, as with SDG&E's proposed project, with implementation of MM NOI-1 through MM NOI-4, and APM NOI-01 through NOI-10, short-term adverse and significant Impacts NOI-1 through NOI-4 would be mitigated under NEPA, and under CEQA impacts would be less than significant with mitigation (Class II).

D.11.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.11.1 and D.11.2 describe the existing environmental setting associated with proposed project. The Forest Service proposed action Options 1 and 2 for C157 would be in the same geographic region as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.11.1 and D.11.2.

Environmental Effects

Impacts NOI-1 and NOI-2: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). All other project components would remain the same. Construction and operational noise impacts would essentially be the same for the relocation of C157 under options 1 and 2, as described in Section D.7.3.3 for SDG&E's proposed project. Due to the undeveloped nature in the vicinity of C157 proposed under this alternative, there would not be a substantial change to the baseline condition including the presence of sensitive receptors that could be exposed to noise impacts. Therefore, as with SDG&E's proposed project, with implementation of MM NOI-01 through MM NOI-04, and APM NOI-01 through NOI-10, construction noise impacts would be reduced by ensuring compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, short-term adverse and significant impacts due to construction noise to sensitive receptors would be mitigated under NEPA and under CEQA would be less than significant with mitigation implemented (Class II).

Impacts NOI-3 and NOI-4: Impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. As C157 options 1 and 2 are within a 0.25 mile of the existing alignment and no new sensitive receptors would be near the new alignments, impact findings for Impact NOI-3 (corona noise) and Impact NOI-4 (routine inspections and maintenance) previously discussed in Section D.11.3.3 would be essentially the same. All other project components would remain the same; thus, impacts due to corona noise and the routine inspections and maintenance activities would not result in an adverse impact under NEPA, and under CEQA, impacts would be considered less than significant (Class III).

D.11.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

As this area is in the same geographic region as SDG&E's proposed project and would consist of undergrounding within existing paved road ROWs, the environmental setting is assumed to be similar to that identified in Sections D.5.1 and D.5.2.

Environmental Effects

Impacts NOI-1 and NOI-2: Besides undergrounding C440 as proposed by the project, this alternative would consist of undergrounding an additional 14.3 miles of C440 within existing paved roadways in the Laguna Mountain Recreation Area. All other project components would remain the same. Construction noise would be greater than the project due to the increased trenching activities required within paved roadways and would have a greater potential to affect sensitive receptors. All other project components would remain the same. With implementation of MM NOI-01 through MM NOI-04 and APM NOI-01 through APM NOI-10, construction noise impacts would be reduced by ensuring compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, short-term adverse and significant impacts due to construction noise to sensitive receptors would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impacts NOI-3 and NOI-4: As this alternative would underground C440 in existing roadways, impact findings for Impact NOI-3 (corona noise) and Impact NOI-4 (routine inspections and maintenance) previously discussed in Section D.11.3.3 would be reduced to no impact.

D.11.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.11.1 and D.11.2 describe the existing environmental setting associated with TL682. The BIA proposed action alternative for TL682 would relocate a portion of the line and underground approximately 1,500 feet on tribal lands. As this area is in the same geographic region as SDG&E's proposed project, the environmental setting would be similar to that identified in Sections D.11.1 and D.11.2.

Environmental Effects

Impacts NOI-1 and NOI-2: Because the modifications proposed to TL682 under this alternative would occur primarily along the existing ROW for TL682, there would not be a change to the

baseline condition including the presence of sensitive receptors that could be exposed to noise impacts. Therefore, impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of MM NOI-01 through MM NOI-04, and APM NOI-01 through APM NOI-10, construction noise impacts NOI-1 and NOI-2 would be reduced by ensuring compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, short-term adverse and significant impacts due to construction noise to sensitive receptors would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impacts NOI-3 and NOI-4: Impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. As C157 options 1 and 2 are within a 0.25 mile of the existing alignment and no new sensitive receptors would be near the new alignments, impact findings for Impact NOI-3 (corona noise) and Impact NOI-4 (routine inspections and maintenance) previously discussed in Section D.11.3.3 would be essentially the same. All other project components would remain the same. Thus, impacts due to corona noise and the routine inspections and maintenance activities would not result in an adverse impact under NEPA, and under CEQA, impacts would be considered less than significant (Class III).

D.11.6 Additional Alternatives

D.11.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.11.1 and D.11.2.

Environmental Effects

Impacts NOI-1 through NOI-4: Noise impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. This alternative would remove up to 10.5 miles of exclusive use access roads that are greater than 25% grade and are too steep to effectively control road drainage, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre). Removal of segments of access roads as proposed under this alternative could increase helicopter use during both construction and operations and maintenance. Noise impacts, including noise due to helicopter use, would reflect similar findings as described in Impacts NOI-1 through NOI-4 discussed in Section D.11.3.3 for SDG&E's proposed project. Therefore, as with SDG&E's proposed project, implementation of MM NOI-01 through MM NOI-04, and APM NOI-01 through APM NOI-10 would, under NEPA, mitigate Impacts NOI-1

through NOI-4 associated with this component, and under CEQA impacts would be less than significant with mitigation (Class II).

D.11.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace it with system upgrades, either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with these upgrades is described as follows:

- a. Upgrade to the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation: The setting associated with this component is largely described in SDG&E's TL6931 Fire Hardening Project Proponent's Environmental Assessment (PEA) (SDG&E 2012). As described in SDG&E's PEA, the existing ROW supports a 69 kV line. The predominant noise sources in the area include traffic on I-8 and local roadways. The noise surrounding the TL6931 alignment would be typical of open space and agricultural areas. Noise sensitive receptors include approximately 20 residences identified within 200 feet of the existing ROW; no other noise sensitive receptors have been identified within 0.25 mile of the ROW.
- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. As described in the Sunrise Powerlink EIR/EIS, the majority of the terrain associated along the proposed 3-mile TL625 loop-in consists of rugged and remote terrain with the closest sensitive receptors located 500 feet from the proposed alignment.
- c. Convert a 6.5-mile portion of TL626 between Santa Ysabel and Boulder Creek Substations, along with a 6.8-mile section that is co-located with C79, from 69 kV to 12 kV within the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.11.1 and D.11.2 for this component.

Environmental Effects

Under this alternative, a 6-mile portion of TL6931 would be reconstructed, or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of TL626 would be converted from 69 kV to 12 kV.

Reconstruction of TL6931

Impacts NOI-1 through NOI-4: Reconstruction of TL6931 would consist of construction as well as operations and maintenance activities similar to that described for the project. Due to the nature of the existing TL6931 alignment, there would not be a substantial change to the baseline condition including the presence of sensitive noise receptors that could be exposed to noise impacts, and therefore noise impacts would reflect similar impact findings previously discussed in Section D.11.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation of MM NOI-01 through MM NOI-04, and APM NOI-01 through APM NOI-10, construction noise Impacts NOI-1 and NOI-2, including conventional construction methods, helicopter use, blasting, and night-time construction, would be reduced by ensuring compliance with County noise standards. Therefore, since construction activities would not occur in any one place for an extended period of time and would be in compliance with County noise standards, adverse and significant impacts due to construction noise to sensitive receptors would be mitigated under NEPA and under CEQA would be less than significant with mitigation implemented (Class II).

Impact findings for Impact NOI-3 (corona noise) and Impact NOI-4 (routine inspections and maintenance) previously discussed in Section D.11.3.3 would be essentially the same, and therefore similar to SDG&E's proposed project, noise impacts due to corona noise and the routine inspections and maintenance activities would not result in an adverse impact under NEPA, and under CEQA, impacts would be considered less than significant (Class III).

Development of the New 3-Mile Loop-in of TL625

Impacts NOI-1 through NOI-4: Development of the new TL625 loop-in would consist of construction as well as operations and maintenance activities similar to those described for the project in areas of rugged terrain. Due to the existing undeveloped nature of the proposed alignment, there would not be a substantial change to the baseline condition including the presence of noise sensitive receptors that could be exposed to noise impacts. Due to the intervening topography, an increase in helicopter use both during construction and operations and maintenance would be required. Noise impacts during construction, including noise due to helicopter use, would reflect similar findings as described in Impacts NOI-1 through NOI-4 discussed in Section D.11.3.3 for SDG&E's proposed project. Therefore, as with SDG&E's proposed project, implementation of MM NOI-01 through MM NOI-04, and APM NOI-01 through APM NOI-10 would, under NEPA, mitigate adverse Impacts NOI-1 through NOI-4 associated with this component. Under CEQA, impacts would be less than significant with mitigation (Class II).

Convert Segments of TL626 from 69 kV to 12 kV

Impacts NOI-1 through NOI-4: Conversion of segments of TL626 to 12 kV would consist of construction as well as operations and maintenance activities similar to those described for the project; therefore, Impacts NOI-1 through NOI-4 would reflect similar impact findings previously discussed in Section D.7.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM NOI-01 through MM NOI-04, and APM NOI-01 through APM NOI-10 would, under NEPA, mitigate Impacts NOI-1 through NOI-4 associated with this component. Under CEQA impacts would be less than significant with mitigation (Class II).

D.11.7 No Action Alternative

Environmental Effects

Impact NOI-1 through NOI-4: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional transmission lines in conformance with CAISO requirements and/or alternative means of delivering electrical service elsewhere would result in similar construction impacts as described in Section D.11.3, and therefore overall impacts to noise would not be reduced.

D.11.8 No Project Alternative

Environmental Effects

Impact NOI-1 through NOI-4: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain; therefore none of the construction impacts described in Section D.11.3 would occur. Operation and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions; therefore no impacts over existing conditions to noise would occur.

D.11.9 Mitigation Monitoring, Compliance, and Reporting

Table D.11-9 presents the mitigation monitoring, compliance, and reporting program for noise and vibration for the power line replacement projects and alternatives.

Table D.11-9
Mitigation Monitoring, Compliance, and Reporting – Noise

Mitigation Measure	MM NOI-1 In the event noise levels during construction activities are expected to exceed an 8-hour L_{eq} of 75 dBA at the nearest property line or within 190 feet of the existing and proposed project alignment where noise-sensitive areas are located, San Diego Gas & Electric (SDG&E) shall implement noise reduction measures to reduce noise levels to below 75 dBA. Measures to be implemented could include: (1) portable noise barriers erected temporarily to reduce noise impacts at specific locations; or (2) if noise barriers would not reduce levels to below 75 dBA, depending on the location of residences and the level of construction noise, SDG&E shall offer to relocate affected residents until the impact has been determined to not be adverse.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	a. Monitor noise where noise sensitive areas are located b. Documentation of noise levels c. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a, b, and c. During construction
<i>Responsible Agency</i>	<u>SDG&E's Proposed Project</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <u>Forest Service Proposed Actions</u> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <u>BIA Proposed Action</u> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <u>Partial Removal of Overland Access Roads</u> : Forest Service <u>Removal of TL626 from Service</u> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)
Mitigation Measure	MM NOI-2 At least 30 days before helicopter use and stringing operations are employed, San Diego Gas & Electric (SDG&E) shall prepare and submit a public notice mailer to the California Public Utilities Commission for approval. The public notice mailer shall be prepared and mailed no less than 7 days prior to helicopter use and stringing operations along the approved project alignment. SDG&E shall notify landowners, residents, schools, livestock facility owners, and CNF offices responsible for managing recreation areas within 590 feet in areas of fly yards and pole locations where helicopters will be used during construction to provide adequate notice of potential helicopter and/or stringing activity within the project vicinity. If construction is delayed for more than 7 days, an additional notice shall be mailed to discuss the status and schedule of helicopter use and stringing operations.
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	a. Provide public notice mailer as defined in mitigation measure to CPUC. b. Mail notice to public c. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a. At least 30 days before helicopter use and stringing operations b. At least 7 days prior to helicopter use and stringing operation c. During construction

**Table D.11-9
Mitigation Monitoring, Compliance, and Reporting – Noise**

<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project:</u> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><u>Forest Service Proposed Actions:</u> CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><u>BIA Proposed Action:</u> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads:</u> Forest Service</p> <p><u>Removal of TL626 from Service:</u> CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM NOI-3 In the unlikely event that rock blasting is used during construction, SDG&E will prepare a blasting plan, that will include a noise and vibration calculation, and will be submitted to the California Public Utilities Commission and the County of San Diego for review before blasting at each site. Each blasting plan will be consistent with SDG&E's blasting guidelines to reduce noise and vibration impacts from blasting activities. The blasting contractor will be required to obtain a blasting permit and explosive permit per the San Diego County Regulatory Ordinances, and will ensure compliance with all relevant local, state, and federal regulations relating to blasting activities.</p>
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Prepare noise and vibration calculation for rock blasting activities</p> <p>b. CPUC/Forest Service Monitor: Line item in compliance monitoring report</p>
<i>Timing</i>	<p>a. Prior to rock blasting activities</p> <p>b. During construction</p>
<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project:</u> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><u>Forest Service Proposed Actions:</u> CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><u>BIA Proposed Action:</u> CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads:</u> Forest Service</p> <p><u>Removal of TL626 from Service:</u> CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
Mitigation Measure	<p>MM NOI-4 For any work that cannot occur during the allowable construction hours (between 7 a.m. and 7 p.m. Monday through Saturday), SDG&E will follow its established protocols and will provide advance notice by mail to all property owners within 300 feet of planned construction activities. The announcement will state the construction start date, anticipated completion date, and hours of construction. SDG&E will also communicate the exception to the CPUC and San Diego County in advance of conducting the work. If necessary, SDG&E will temporarily relocate residents occupying properties located less than 220 feet from construction activities on an as-needed basis for the duration of construction activities that would affect them.</p>
<i>Location</i>	All construction work areas for SDG&E's proposed project and all alternatives.
<i>Compliance Documentation^(a) and Consultation</i>	<p>a. Provide public notice mailer as defined</p> <p>b. Provide verification of relocation of residents, if needed.</p> <p>c. CPUC/Forest Service Monitor: Line item in compliance monitoring report</p>
<i>Timing</i>	<p>a. At least 15 days prior to work occurring outside allowable construction hours</p> <p>b. At least 7 days prior to relocation of residents.</p> <p>c. During construction</p>

Table D.11-9
Mitigation Monitoring, Compliance, and Reporting – Noise

<i>Responsible Agency</i>	<p><u>SDG&E's Proposed Project</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79)</p> <p><u>Forest Service Proposed Actions</u>: CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157)</p> <p><u>BIA Proposed Action</u>: CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682)</p> <p><u>Partial Removal of Overland Access Roads</u>: Forest Service</p> <p><u>Removal of TL626 from Service</u>: CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)</p>
---------------------------	---

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

D.11.10 Residual Unavoidable Effects

Under NEPA, SDG&E's proposed project and alternatives would reduce the noise related to helicopter use by adopting the mitigation measures summarized in Section D.11.9, along with APMs provided in Section D.11.3.2, but not eliminate the potential for noise effects generated by helicopter use. Under CEQA, implementation of mitigation measures presented in Section D.11.9 would mitigate all significant noise impacts to less than significant (Class II). Therefore, no residual effects would occur for SDG&E's proposed project or alternatives.

D.11.11 References

- Acentech. 2012. *Cleveland National Forest Electric Safety and Reliability Project Technical Noise Study Report*. Project No. 617187, Report No. 423. Prepared for SDG&E. Westlake Village, California: Acentech Inc. November 2012. [http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF%20Noise%20Tech%20Rep%20\(10-12-12S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF%20Noise%20Tech%20Rep%20(10-12-12S).pdf).
- Caltrans (California Department of Transportation). 2009. *Technical Noise Supplement for the Traffic Noise Analysis Protocol*. November 2009. Accessed March 6, 2013. http://www.dot.ca.gov/hq/env/noise/pub/tens_complete2009RedlineScreenProcess.pdf.
- County of San Diego. 2009. *Guidelines for Determining Significance: Noise*. January 27, 2009. Department of Planning and Land Use, Department of Public Works. <http://www.sdcounty.ca.gov/pds/docs/Noise-Guidelines.pdf>
- County of San Diego. 2011. Ordinance No. 9962 (N.S.): An Ordinance Amending Title 3, Division 6, Chapter 4 of the San Diego County Code of Regulatory Ordinances Relating to Noise Control and Abatement.

EPA (U.S. Environmental Protection Agency). 1981. *Noise Effects Handbook: A Desk Reference to Health and Welfare Effects of Noise*. Office of Noise Abatement and Control, U.S. Environmental Protection Agency. Revised July 1981.

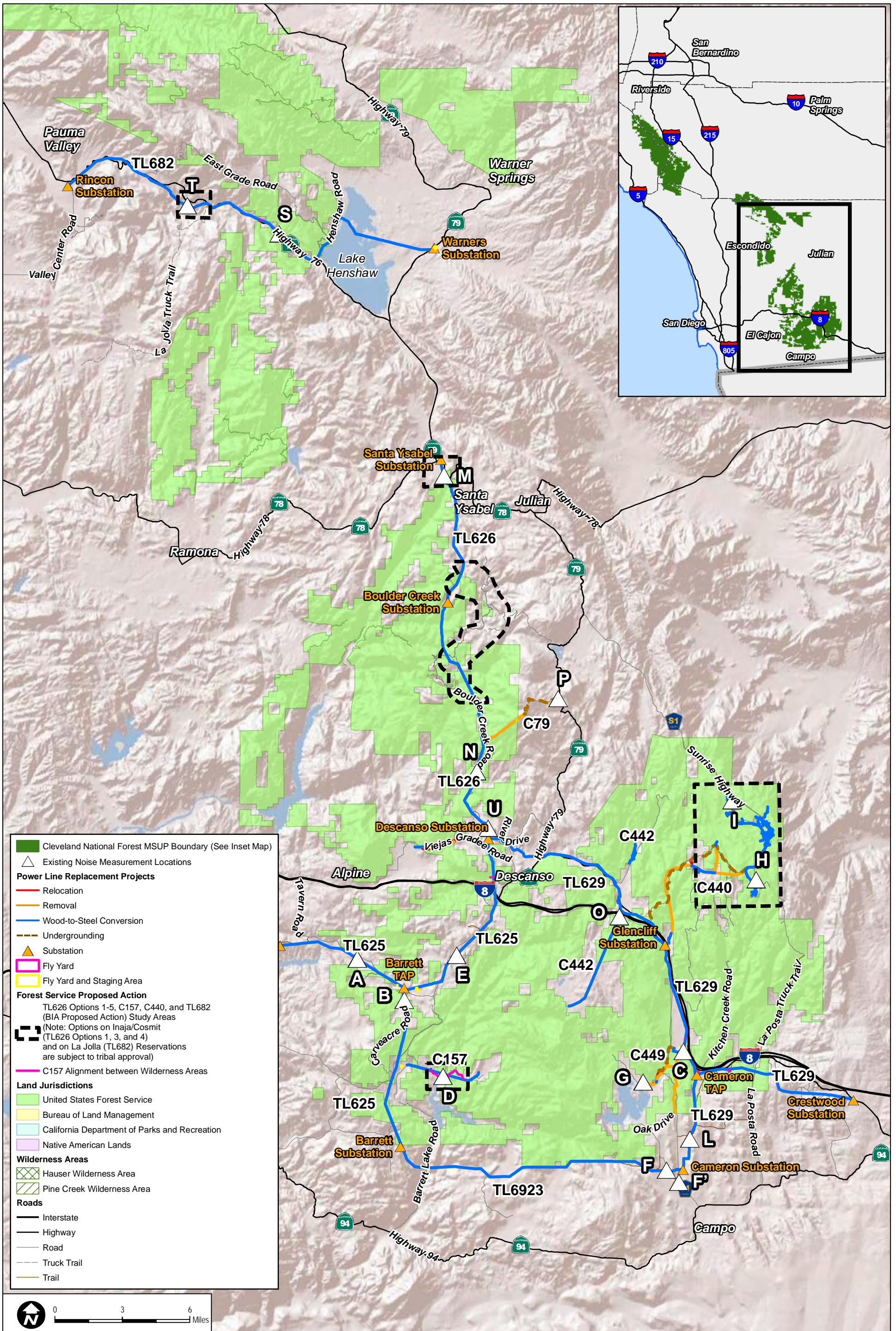
FTA (Federal Transit Administration). 2006. *Transit Noise and Vibration Impact Assessment*. July 1, 2006.

SDG&E (San Diego Gas & Electric). 2012. *Proponent's Environmental Assessment for the TL6931 Fire Hardening /Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.

SDG&E. 2013a. Partial response to Cleveland National Forest Power Line Replacement Projects PTC Energy Division Data Request 02 (Dated December 20, 2012). Response dated January 25, 2013.

SDG&E 2013b. *SDG&E Revised Plan of Development. San Diego Gas & Electric Company, Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California*. April 2013. Accessed March 2014. Prepared by Insignia Environmental. [http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20\(04-19-13S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20(04-19-13S).pdf).

SDG&E. 2014. Response A. "12-10-009 to Cleveland National Forest Power Line Replacement Projects PTC Energy Division Data Request 4 (Dated December 19, 2013)." January 17, 2014. Accessed February 3, 2014. http://www.cpuc.ca.gov/environment/info/dudek/CNF/DR4_Response_1.17.14.pdf



D.12 Public Services and Utilities

This section discusses potential impacts to public services and utilities, including impacts to fire protection services, municipal water supplies, telecommunications infrastructure, and solid waste disposal capacity resulting from construction and operation of the proposed power line replacement projects along with the operation and maintenance activities proposed for authorization under the MSUP. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines. Section D.12.1 provides a description of the existing environmental setting/affected environment, and the applicable regulations, plans, and standards are introduced in Section D.12.2. An analysis of impacts/environmental effects of SDG&E's proposed project and discussion of mitigation are provided in Section D.12.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.12.4, and Section D.12.5 discusses the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are described in Section D.12.6. Section D.12.7 discusses the No Action Alternative and Section D.12.8 describes the No Project Alternative. Section D.12.9 provides mitigation monitoring, compliance, and reporting information. Section D.12.10 addresses residual effects of the project, and Section D.12.11 lists the references cited in this section.

For a discussion regarding wildfire hazards resulting from implementation of SDG&E's proposed project please refer to Section D.8, Fire and Fuels Management. For a discussion of impacts to groundwater supplies please refer to Section D.9, Hydrology and Water Quality. For a discussion of other public services and utilities including wastewater, police, library, schools and hospitals please refer to Section G.5, Required CEQA/NEPA Topics, of this EIR/EIS.

D.12.1 Environmental Setting/Affected Environment

This section provides a description of existing fire protective services, municipal water providers, telecommunications infrastructure, and the solid waste handling and disposal facilities in the project area that would likely service the project.

Methodology and Assumptions

The existing SDG&E electric facilities (power lines, access roads, and other facilities) to be covered under the proposed MSUP are located within the Cleveland National Forest (CNF) within southwestern Orange County and southeastern San Diego County, with the majority of the study area including all of the proposed power line replacement projects located within San Diego County within and surrounding the CNF. These existing facilities are routinely maintained and operated as needed. The impacts to public services from these past actions are part of the baseline for the analysis of SDG&E's proposed project and alternatives.

Baseline public services information was obtained through a review of available protection services information within the project area as referenced below. Such sources include the California Department of Forestry and Fire Protection (CAL FIRE), the County of San Diego Fire Authority, California Department of Resources Recycling and Recovery (CalRecycle), and SanGIS (the San Diego Geographic Information Source, maintained by the County of San Diego and the City of San Diego).

D.12.1.1 Fire Protective Services

The study area is located in a rural area with few residents that includes areas of the CNF and areas statutorily designated by CAL FIRE as within the Very High Fire Hazard Severity Zone (CAL FIRE 2007).

The U.S. Forest Service provides fire protection and fire management services to CNF lands. Additionally, in rural San Diego County, there are several jurisdictions that provide fire protection services. The Forest Service provides fire protection services through funding and staffing of the 11 Forest Service fire stations listed in below Table D.12-1. The State of California also provides fire protective services in rural San Diego County through the CAL FIRE. Locally, the San Diego County Fire Authority provides fire protective services and/or manages overlapping fire protection agencies through management and oversight of County Service Areas, the San Diego Rural Fire Protection District, or contracted fire agencies (County of San Diego 2013). Additionally, there are Native American reservation fire protection services within the project area. Table D.12-1 lists the fire protection service providers within the project area, and Figure D.12-1 shows their locations relative to the project alignment.

Table D.12-1
Eastern San Diego County Fire Protection Service Providers

Map Location #	Fire Protection Agency	Station	Status
1	Alpine Fire Protection District	Alpine Fire Station	Full-Time
2	Barona Reservation Fire Department	Barona Reservation Fire Station	Full-Time
3	CALFIRE	CALFIRE Campo	Full-Time
4	CALFIRE	CALFIRE Cuyamaca	Full-Time
5	CALFIRE	CALFIRE Dulzura	Full-Time
6	CALFIRE	CALFIRE Flinn Springs	Full-Time
7	CALFIRE	CALFIRE Julian	Full-Time
8	CALFIRE	CALFIRE La Cima Camp	Seasonal
9	CALFIRE	CALFIRE Lyons Valley	Full-Time
10	CALFIRE	CALFIRE Potrero	Full-Time
11	CALFIRE	CALFIRE Puerta La Cruz Camp	Seasonal

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.12 PUBLIC SERVICES AND UTILITIES**

**Table D.12-1
Eastern San Diego County Fire Protection Service Providers**

Map Location #	Fire Protection Agency	Station	Status
12	CALFIRE	CALFIRE Rincon	Full-Time
13	CALFIRE	CALFIRE Warner Springs	Full-Time
14	CALFIRE	CALFIRE Witch Creek	Full-Time
15	Campo Reservation Fire Department	Campo Reservation Fire Station	Part-Time
16	Campo Volunteer Fire Department	Campo Volunteer Fire Station	Part-Time
17	Fish and Wildlife Service	Fish & Wildlife Service Daley Ranch Fire Station	Seasonal
18	Intermountain Volunteer Fire & Rescue	Intermountain Volunteer Fire Station	Part-Time
19	Julian-Cuyamaca Fire Protection District	Julian-Cuyamaca Volunteer Fire Station 71	Part-Time
20	Julian-Cuyamaca Fire Protection District	Julian-Cuyamaca Volunteer Fire Station 74	Part-Time
21	North County Reservation Fire District	La Jolla Reservation Fire Station	Part-Time
22	Lakeside Fire Protection District	Lakeside Fire Station 26	Full-Time
23	San Diego Rural Fire Protection District	Lawson Valley	Part-Time
24	San Diego Rural Fire Protection District	Lee Valley	Part-Time
25	Mesa Grande Indian Reservation	Mesa Grande Reservation Fire Station	Part-Time
26	Mount Laguna Volunteer Fire Department	Mount Laguna Volunteer Fire Station	Part-Time
27	North County Reservation Fire District	North County Reservation Fire - La Jolla Station	Part-Time
28	Palomar Mountain Volunteer Fire Department	Palomar Mountain Volunteer Fire Station	Part-Time
29	Pine Valley Fire Protection District	Pine Valley Fire Station	Full-Time
30	Ramona Municipal Water District	Ramona Municipal Water District Fire Station 81	Full-Time
31	Ranchita Volunteer Fire Department	Ranchita Volunteer Fire Station 58	Part-Time
32	North County Reservation Fire Department	Rincon Reservation Fire Station	Part-Time
33	San Diego Rural Fire Protection District	San Diego Rural Deerhorn	Part-Time
34	San Diego Rural Fire Protection District	San Diego Rural Dehesa	Part-Time
35	San Diego Rural Fire Protection District	San Diego Rural Descanso	Full-Time
36	San Diego Rural Fire Protection District	San Diego Rural Dulzura	Part-Time
37	San Diego Rural Fire Protection District	San Diego Rural Harbison Canyon	Part-Time
38	San Diego Rural Fire Protection District	San Diego Rural Jamul	Full-Time
39	San Diego Rural Fire Protection District	San Diego Rural Lake Morena	Part-Time
40	San Diego Rural Fire Protection District	San Diego Rural Potrero	Part-Time
41	San Diego Rural Fire Protection District	San Diego Rural Tecate	Part-Time
42	San Miguel Fire Protection District	San Miguel Fire Station 18	Full-Time
43	North County Reservation Fire District	Santa Ysabel Reservation Fire Station	Part-Time
44	Sunshine Summit Volunteer Fire Department	Sunshine Summit Volunteer Fire Department	Part-Time
45	Sycuan Reservation Fire Department	Sycuan Reservation Fire Station	Full-Time
46	Forest Service	Forest Service Alpine Fire Station 47	Seasonal
47	Forest Service	Forest Service Cameron Fire Station 43	Seasonal
48	Forest Service	Forest Service Camp Ole 42	Seasonal
49	Forest Service	Forest Service Cottonwood Fire Station 44	Seasonal
50	Forest Service	Forest Service Descanso Fire Station 41	Seasonal
51	Forest Service	Forest Service Glenclyff Fire Station 45	Seasonal

**Table D.12-1
Eastern San Diego County Fire Protection Service Providers**

Map Location #	Fire Protection Agency	Station	Status
52	Forest Service	Forest Service Goose Valley Fire Station 34	Seasonal
53	Forest Service	Forest Service Henshaw Fire Station 32	Seasonal
54	Forest Service	Forest Service Japatul 46	Seasonal
55	Forest Service	Forest Service Pine Hills 33	Seasonal
56	Forest Service	Forest Service San Vicente 35	Seasonal
57	Viejas Reservation Fire Department	Viejas Reservation Fire Station	Full-Time
58	Warner Springs Volunteer Fire Department	Warner Springs Volunteer Fire Station	Part-Time

Source: SANGIS 2012

Many of these fire protection service providers have mutual-aid agreements to provide fire protective services to areas within adjacent jurisdictions depending on the type of emergency. In addition to the fire protective service providers listed above, the Bureau of Land Management (BLM), through the Fire and Aviation Directorate Program, provides aerial firefighting support for fires occurring on BLM lands. Aircraft used by the BLM are BLM-owned and contracted. In addition, CAL FIRE has an air attack base located in Ramona and the Forest Service has one helicopter located on the CNF and a type 1 helicopter in Hemet.

The BLM also provides funding for firefighting efforts (through Community Assistance Grants) in the rural areas of San Diego County. In the past, funding has been used for wildfire training to local volunteers responsible for responding to fires on BLM lands. In San Diego County, BLM lands are under a Direct Protection Agreement with CAL FIRE, which specifies that CAL FIRE provides fire response resources and is responsible for conducting investigations regarding the recovery of fire suppression costs (CPUC and BLM 2008).

D.12.1.2 Municipal Water Providers

The amount of water needed for operation and maintenance of the existing power lines is highly variable depending on climatic conditions, soil types, fire-threat conditions vegetation types, among other variables. SDG&E estimates that approximately 130,000 gallons of water is used annually. When water is required it is purchased from a variety of water sources, including local municipal water districts tribal wells, and private wells, and trucked to work sites (SDG&E 2014). Nearby local water districts include the following (LAFCO 2014):

- Descanso Community Water District
- Julian Community Service District
- Majestic Pines Community Services District

- Padre Dam Municipal Water District
- Ramona Municipal Water District
- South Bay Irrigation District
- Vista Irrigation District
- Wynola (California) Water District.

Water may also be purchased from private or tribal wells, or from other municipal water districts that are further away, including the Yuima Municipal Water District, Lakeside Water District, City of San Diego, and City of Escondido. The various municipal water providers get their water from underground wells, lakes, recycled water (for limited use such as irrigation or construction use), or from the San Diego County Water Authority, which imports up to 80% of its water from the Metropolitan Water District of Southern California (SDCWA 2014).

D.12.1.3 Telecommunications Infrastructure

AT&T provides telecommunications services in the project area and, in many areas, leases space on SDG&E's poles that are to be replaced under SDG&E's proposed project.

D.12.1.4 Solid Waste

Maintenance of the existing transmission lines requires activities that generate solid waste, such as tree and vegetation trimming activities, access road maintenance, and hardware replacement and repair work. The majority of the bulk of waste generated through maintenance of the existing transmission lines is vegetation waste. The amount of biomass generated annually from these power lines varies based mainly on the amount of water available to trees, brush, and annual plants growing in proximity to these facilities. Seasons with high rainfall amounts will subsequently yield greater amounts of biomass from vegetation management operations. Conversely, prolonged drought will generally yield less biomass, with the exception of tree decay and overall mortality caused by drought. On average, SDG&E estimates approximately 77 tons of biomass is generated annually from the maintenance of the existing power lines (SDG&E 2014).

Where maintenance activities occur in locations requiring crews to walk significant distances, SDG&E employs a Forest Service-approved practice of lopping and scattering vegetation waste in the vicinity of the work area. When maintenance crews are able to carry vegetation waste to their support vehicles for removal, the waste is chipped and either hauled to an approved recycling or landfill site, or is provided to customers in the local area, at their request, for use as erosion control, weed abatement, or landscaping materials. In these instances, the requesting customer signs a release form prior to receipt of the materials. Any materials hauled but not released to a requesting customer are disposed of at an approved landfill, or deposited temporarily in one of several transfer and processing stations. SDG&E's currently approved

disposal locations for vegetation wastes are the Sycamore Landfill, the Escondido Transfer and Recycling Center, the Ramona Transfer Station, and the Otay Landfill (SDG&E 2014).

In addition to the facilities listed above, there are several other permitted active landfills located within San Diego and Imperial counties with remaining capacity that could also serve the project. The landfills closest to the project alignment that would most likely receive solid waste generated during maintenance and construction activities occurring along the project alignment are listed below in Table D.12-2.

Table D.12-2
Solid Waste Disposal Facilities in the Project Area

Facility	Location	Permitted Disposal Rate/Throughput	Remaining Capacity
Allied Imperial Landfill	104 East Robinson Road, Imperial	1,700 tons/day	15,485,200 cubic yards (as of December 31, 2010)
Borrego Landfill	2449 Palm Canyon Road, Borrego Springs	50 tons/day	478,836 cubic yards (as of August 2009)
Imperial Solid Waste Site	1705 West Worthington Road, Imperial	18 tons/day	183,804 cubic yards (as of May 1, 2012)
Otay Landfill	1700 Maxwell Road, Chula Vista	5,830 tons/day	24,514,904 cubic yards (as of March 31, 2012)
Sycamore Landfill	8514 Mast Boulevard at West Hills Pkwy, San Diego	3,965 tons/day	47,388,428 cubic yards (as of September 30, 2006)

Sources: CalRecycle 2013a–e

The project would also be served by several materials recovery facilities, including the Ramona Materials Recovery Facility and Transfer Station located at 324 Maple Street in Ramona, which processes mixed municipal, construction/demolition, and green materials (CalRecycle 2013f).

D.12.2 Applicable Regulations, Plans, and Standards

D.12.2.1 Federal Regulations

U.S. Forest Service Land Management Plan

The U.S. Forest Service Land Management Plan (LMP) for the Southern California national forest includes the Angeles National Forest, the CNF, the Los Padres National Forest, and the San Bernardino National Forest. The proposed project is located within the Cleveland National Forest. The following are LMP goals and policies (USDA 2005) applicable to public services and utilities.

- **LMP Policy:** Goal 7.1 – Retain natural areas as a core for a regional network while focusing the built environment into the minimum land area needed to support growing public needs. [LMP Part 1]
- Facilities supporting urban infrastructure needs are clustered on existing sites or designated corridors, minimizing the number of acres encumbered by special-use authorizations. Special-uses serve public needs, provide public benefits, and conform to resource management and protection objectives. All uses are in full compliance with the terms and conditions of the authorization. There is a low level of increase in the developed portion of the landscape as measured by road densities; in fact, over time, the built environment is shifted away from or designed to better protect resource values.
- **LMP Policy:** Lands 2 – Non-Recreation Special Use Authorizations [LMP Part 2]
 - Administer existing special-use authorizations in threatened, endangered, proposed and candidate species habitats to ensure they avoid or minimize impacts to threatened, endangered, proposed and candidate species and their habitats, cultural and scenic resources, and open space values.
 - Efficiently administer special-use authorizations (SUAs) on National Forest System lands.
 - Work with special-use authorization holders to better administer National Forest System land and to reduce administrative cost.
 - Require special-use authorizations to maximize opportunities to co-locate facilities and minimize the encumbrance on National Forest System land.
 - For special-use authorization holders operating within threatened, endangered, proposed and candidate species key and occupied habitats develop and provide information and education on the ways to avoid and minimize effects on their activities on occupied threatened, endangered, proposed and candidate species habitat.
 - Use signing, barriers, or other suitable measures to protect threatened, endangered, proposed and candidate species in key and occupied habitats within the special-use authorization areas.
- **LMP Policy:** CNF S6 – Place new power lines (33 kV or less), telephone lines, and television cables underground wherever possible.

D.12.2.2 State Laws and Regulations

California Integrated Waste Management Board Solid Waste Policies

Assembly Bill 939 (AB 939), the Integrated Waste Management Act, established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (now the California Department of Resources Recycling and Recovery, or CalRecycle) and local agencies in the implementation of programs geared at (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. AB 939 also included waste diversion mandates that require all cities and counties to divert 50% of all solid waste through source reduction, recycling, and composting activities by 2000. In 2011 AB 341 was passed that requires CalRecycle to issue a report to the legislature that includes strategies and recommendations to enable the state to divert 75% of all solid waste generated in the state by 2020 (CalRecycle 2013g).

D.12.2.3 Regional Policies, Plans, and Regulations

County of San Diego Construction and Demolition Materials Ordinance

The County of San Diego Construction and Demolition Materials Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) is intended to increase diversion of construction and demolition materials from landfills in order to conserve landfill capacity and extend the useful life of local landfills. The ordinance requires that projects totaling over 40,000 square feet of construction prepare a debris management plan that specifies the type of project, total square footage of construction, and (among other items) the estimated volume and weight of construction and demolition debris that would be disposed of at a landfill. Applicants of applicable projects are required to submit a performance guarantee (payment) to the County to ensure that the project complies with the diversion standards (i.e., projects shall recycle 90% inert construction and demolition debris and 70% of all other construction and demolition debris) of the Construction and Demolition Materials Ordinance.

D.12.3 Environmental Effects

D.12.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

The CEQA criteria and guidelines described below are also used as indicators of adverse effect under NEPA. The following public services and utilities significance criteria were derived from previous environmental impacts assessments and from Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Under CEQA, impacts related to public services and utilities would be significant if the project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, municipal water supplies, and telecommunications
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, and local statutes and regulations related to solid waste.

D.12.3.2 Applicant Proposed Measures

SDG&E has proposed Applicant Proposed Measures (APMs) GEN-02 and GEN-03, which include recycling and disposal methods to reduce impacts associated with solid waste (see Section B.7 of this EIR/EIS). SDG&E has also proposed APMs and other project design features to minimize impacts associated with fire hazards; they are evaluated in Section D.8, Fire and Fuels Management, of this EIR/EIS.

D.12.3.3 Direct and Indirect Effects

Impact PSU-1 Result in physical impacts associated with the provision of new or physically altered government facilities, need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, municipal water supplies, and telecommunications

Fire Protection

As discussed above and shown in Table D.12-1 and Figure D.12-1, fire protection services are provided by the Forest Service, BLM, CAL FIRE, San Diego County Fire Authority, San Diego County Rural Fire Protection District, several other local fire protection districts, and Native American reservation fire protection services. As discussed in Section D.8, Fire and Fuels Management, of this EIR/EIS, construction and operation and maintenance activities associated with SDG&E's proposed project would include potential ignition sources that could ignite a wildfire. However, as discussed in Section D.8, with implementation of APMs HAZ-01 through HAZ-06, along with mitigation measures MM FF-1, MM FF-2, and MM BIO-1d adverse and significant fire hazards due to the project would be mitigated; therefore, the demand for increased fire protection services in the study area would not increase with implementation of SDG&E's proposed project in such a way as to require the construction of new or physically

altered facilities in order to maintain acceptable levels of service. Therefore, under NEPA, impacts to fire protection services would be mitigated, and under CEQA would be less than significant with mitigation (Class II).

Municipal Water Supplies

Water usage can fluctuate depending on many variables that include climatic conditions, soil types, and fire-threat conditions vegetation types. SDG&E estimated water usage requirements for their proposed project by examining several factors, including the duration of each project phase; the number of pole work areas; miles of conductor, miles of access road, or miles of undergrounding to be included in each phase; and the average water requirements per day for each type of work to be conducted. By calculating the average water requirements per day, per site type, and multiplying that average across the number of days for each phase included in the construction schedule, SDG&E anticipates that approximately 5 to 10 million gallons of water per year over an approximate 5-year period will be required to construct all phases of the proposed project (SDG&E 2014).

SDG&E intends to use a variety of water sources, both public and private including, but not limited to, the City of San Diego and local community services districts listed in Section D.12.1.2, and private groundwater extraction operations. Impacts and mitigation measures associated with the use of private groundwater extraction operations and to groundwater in general are discussed in Section D.9, Hydrology and Water Quality, of this EIR/EIS.

As listed in Section D.12.1.2 earlier, there are eight local water suppliers that serve the project area. Although the project's construction water demand would be temporary, it would occur over a 5-year period with no formal commitments yet provided by local water purveyors to supply the estimated water needed to construct the project. To ensure a confirmed reliable water supply, mitigation measure MM HYD-2a is provided. With implementation of MM HYD-2a, the construction water requirements of SDG&E's proposed project would be ensured without requiring new or expanded municipal water facilities or services; therefore, adverse and significant construction-related impacts to municipal water services would be mitigated under NEPA, and under CEQA would be considered less than significant with mitigation (Class II).

Operation and maintenance of SDG&E's proposed project along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, and maintenance activities similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project in such a way as to increase the existing demand for water estimated to be 130,000 gallons per year. Note estimated water demand could fluctuate depending on time of year and weather conditions. Water use during operations would not be considered excessive, and the

previously identified eight local water suppliers that serve the project area and are assumed to have adequate supplies to accommodate the small volumes of water required during project operations. Therefore, impacts to municipal water supplies services due to operation and maintenance of SDG&E's proposed project would not exceed the significance threshold, and under NEPA would not be adverse and under CEQA would be less than significant (Class III).

Telecommunications Infrastructure

As stated above, AT&T provides telecommunications services in the project area and, in many areas, leases space on existing facilities proposed to be replaced as part of the proposed power line replacement projects. Where AT&T's telecommunications lines are currently strung on the same poles, replacement of the poles without coordination with AT&T could result in interruptions of telecommunications services or a delay in the removal of the existing poles. To mitigate this adverse and significant impact to a level that is considered not adverse under NEPA, and less than significant under CEQA (Class II), mitigation measure MM PSU-1 has been provided.

MM PSU-1 **AT&T Commitments.** Prior to receiving a Notice to Proceed with construction along each of the proposed power line replacement projects, SDG&E shall provide to the CPUC and Forest Service written commitment from AT&T confirming that AT&T facilities that are co-located on the proposed power line replacement projects will be relocated to SDG&E's new facilities. Facilities will be transferred in a manner that avoids interruptions of telecommunications services to the greatest degree possible. The timing of the relocation activities will be reviewed and approved by both the CPUC and Forest Service.

Impact PSU-2 Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

The primary source of solid waste resulting from construction of SDG&E's proposed project would be wooden poles and associated appurtenances to be removed from the alignment and replaced. In accordance with APMs GEN-02 and GEN-03, described earlier, the majority of removed materials from the existing alignment would be recycled at a licensed facility within the area if it is determined that materials slated for disposal are nonhazardous and non-impacted. Treated wood products would be recycled or disposed of as appropriate at a licensed landfill in accordance with all federal, state, and local regulations. Conductors, hardware, and insulators associated with removed facilities would be recycled an approved facility, such as the SDG&E Mountain Empire Construction and Operations yard in Pine Valley, or recycled at a metal recycling facility. Excavated soil would be reused on site,

including as infill and recompaction of vacant holes created during pole removal. Also, in accordance with APM GEN-01, all excess soil not reused for backfill on site would spread on the site. For any material that cannot be recycled, permanent disposal of waste generated from SDG&E's proposed project would likely be sent to one of the landfills listed in Table D.12-2, which have a combined remaining capacity of approximately 88 million cubic yards. Overall, the majority of material to be removed would be recycled; thus, the amount of construction waste to be disposed at a landfill or other permitted facility is expected to be minimal. Therefore, construction of SDG&E's proposed project would not have a substantial impact on local solid waste facilities and would not result in the need for expansion of a landfill or other disposal site. Construction-related impacts on solid waste disposal facilities would not be adverse under NEPA, and would be less than significant (Class III) under CEQA.

Operation and maintenance of SDG&E's proposed project along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing and maintenance activities similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project in such a way as to increase the demand for solid waste disposal. The previously identified five local solid waste providers that serve the project area are assumed to have adequate capacity to accommodate the small volumes of solid waste generated during project operations. Therefore, impacts to municipal landfill services due to operation and maintenance of SDG&E's proposed project would not exceed the significance threshold, and under NEPA would not be adverse and under CEQA would be less than significant (Class III).

Impact PSU-3 Disruption of electric service to existing users

Short-term electric service interruptions during construction would likely occur during transfer of power from existing circuits to new circuits. Electric transfers would be phased in accordance with California Independent System Operator (CAISO) requirements in order to reduce the potential for electric service interruptions during construction. Conformance with CAISO requirements would ensure that impacts to electric service during construction would not be adverse under NEPA and would be less than significant under CEQA (Class III).

D.12.4 Forest Service Proposed Actions

Environmental Setting/Affected Environment

Sections D.12.1 and D.12.2 describe the existing public service and utility setting associated with SDG&E's proposed project. Each of the Forest Service proposed action alternatives would be in

the same geographic service area as SDG&E's proposed project; therefore, the public service and utility setting would remain the same as that identified in Sections D.12.1 and D.12.2.

D.12.4.1 TL626 Alternative Routes

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Options 3 and 4: Partial Underground/Overhead Relocation in/along Boulder Creek Road

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts PSU-1: Impacts generated from relocating TL626 as proposed in Options 1 through 5 would reflect similar impact findings previously discussed in Section D.12.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, there would be no new demand for increased fire protection services that require the construction of new or physically altered facilities in order to maintain acceptable levels of service. With implementation of APM HAZ-01 through APM HAZ-06, along with mitigation measures MM FF-1, MM FF-2, and MM BIO-1d, adverse and significant fire hazards due to the Forest Service proposed action for TL626 Options 1 through 5 and the project as a whole would be mitigated. The fire risk under Option 3 would be reduced for this segment as the line would be undergrounded along Boulder Creek Road. Therefore, under NEPA, identified impacts from Options 1 through 5 to fire protection services would not be adverse, and under CEQA this impact would be less than significant (Class III).

The overall water volume required for construction and operation of the Forest Service proposed action for TL626 Options 1 through 5 would be greater than the water volumes required for construction of SDG&E's proposed project due to the overall greater disturbance areas required. As such, water use would increase over the reconstruction of TL626 in place as proposed. However, with implementation of MM HYD-2a, the construction water needed for this alternative and project as a whole would be ensured without requiring new or expanded municipal water facilities or services; therefore, adverse and significant construction-related impacts to municipal water services would be mitigated under NEPA, and under CEQA would be considered less than significant with mitigation (Class II).

As with t SDG&E's proposed project, it is anticipated that the eight local water suppliers that service the project area would have the water volumes needed during project operations to meet the demand for water supplies. Therefore, impacts to municipal water supplies during operations and maintenance of the Forest Service proposed action for TL626 Options 1 through 5 and the

project as a whole would not be adverse under NEPA, and under CEQA would be less than significant (Class III).

As no telecommunication facilities are co-located on TL626, no impacts due to relocation of this line would occur.

Impact PSU-2: Impacts to waste facilities would reflect similar impact findings previously discussed in Section D.12.3.3. TL626 Relocation Options 1 through 5 would not change the amount of wooden poles that would be removed along the existing TL626 and the project as a whole. In addition, as with SDG&E's proposed project, excavated soils from poles and open trenching activities would be reused on site (Impact PSU-2). Therefore, the waste produced during construction activities would be similar to SDG&E's proposed project. Although during operations there would be slight increase of operations and maintenance activities due to the longer lines under Options 1 through 5, this would be a marginal increase. As shown in table D.12-2, there is adequate capacity remaining at local waste facilities; therefore, waste providers are anticipated to have adequate capacity. Like SDG&E's proposed project, maintenance activities would be similar to those currently conducted by SDG&E; therefore, there would be no increase in demand for solid waste disposal during operation of this alternative. Therefore, identified impacts for waste facilities would not be adverse under NEPA and would be less than significant under CEQA (Class III).

Impact PSU-3: As discussed in Section D.12.3.3, electric transfers would be phased for options 1 through 5 in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Therefore, identified impacts for electric service disruptions would be the same as SDG&E's proposed project. Impacts would not be adverse under NEPA and would be less than significant under CEQA (Class III).

D.12.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Effects

Impacts PSU-1, PSU-2, and PSU-3: Impacts generated from relocating C157 as proposed in options 1 and 2 would reflect the same impact findings previously discussed in Section D.12.3.3 for the proposed replacement of C157. As such, impacts to fire services, municipal water services, telecommunications, solid waste facilities, and disruption to electric service disruptions would essentially be the same as the proposed replacement of C157 as well as the project as a whole. Identified impacts to fire services, solid waste facilities, and disruption to

electric service disruptions would not be adverse under NEPA and would be less than significant under CEQA (Class III). AT&T facilities are co-located on the C157 poles and would need to be relocated with the SDG&E facilities. With implementation of MM HYD-2a and MM PSU-1, adverse and significant water supply and telecommunication impacts identified would be mitigated under NEPA and under CEQA, would be considered less than significant with mitigation (Class II).

D.12.4.3 C440 Mount Laguna Underground Alternative

Environmental Effects

Impact PSU-1: Impacts would reflect similar impact findings previously discussed in Section D.12.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, there would be no new demand for increased fire protection services that require the construction of new or physically altered facilities in order to maintain acceptable levels of service. With implementation of APM HAZ-01 through APM HAZ-06, along with Mitigation Measures MM FF-1, MM FF-2, and MM BIO-1d, adverse and significant fire hazards due to this alternative and the project as a whole would be mitigated. The fire risk under this alternative would be slightly reduced as approximately 14.3 miles of C440 would be undergrounded. Therefore, under NEPA, identified impacts to fire protection services would not be adverse, and under CEQA this impact would be less than significant (Class III).

The partial undergrounding of C440 is not anticipated to require substantially more water than was identified in Section D.12.3.3 for construction and operation of SDG&E's proposed project. Therefore, similar to SDG&E's proposed project, approximately 5 to 10 million gallons of water would be required for construction, and 130,000 gallons of water per year would be used during operation; thus, PSU-1 impacts under this alternative would be similar to those identified in Section D.12.3.3. Impacts would be adverse under NEPA. Mitigation Measure MM HYD-2a has been provided that would mitigate this impact. Under CEQA, impacts would be considered less than significant with mitigation (Class II).

Impacts to telecommunication services would be the same as those discussed in Section D.12.3.3. AT&T and SDG&E would be required to coordinate regarding co-location of telecommunication services on the portion of the facilities that would be undergrounded and with the project as a whole under this alternative. With implementation of MM PSU-1, impacts would not be adverse under NEPA, and would be less than significant under CEQA with mitigation (Class II).

Impact PSU-2: Impacts to waste facilities would reflect the same impact findings previously discussed in Section D.12.3.3. This alternative would not change the amount of wooden poles

that would be removed along the existing C440 and the project as a whole. In addition, as with SDG&E's proposed project, excavated soils from open trenching activities would be reused on site (Impact PSU-2). Therefore, the waste produced during construction activities would be similar to SDG&E's proposed project. Like SDG&E's proposed project, maintenance activities would be similar to those currently conducted by SDG&E; therefore, there would be no increase in demand for solid waste disposal during operation of this alternative. Therefore, identified impacts for waste facilities would not be adverse under NEPA and would be less than significant under CEQA (Class III).

Impact PSU-3: As discussed in Section D.12.3.3, electric transfers under this alternative would also be phased in accordance with CAISPO requirements in order to reduce the potential for electric service interruptions during construction. Therefore, identified impacts for electric service disruptions would be the same as SDG&E's proposed project. Impacts would not be adverse under NEPA and would be less than significant under CEQA (Class III).

D.12.5 BIA Proposed Action

Environmental Effects

Impact PSU-1: Impacts would reflect similar impact findings previously discussed in Section D.12.3.3 for TL682. As with SDG&E's proposed project, there would be no new demand for increased fire protection services that require the construction of new or physically altered facilities in order to maintain acceptable levels of service. With implementation of APM HAZ-01 through APM HAZ-06, along with mitigation measures MM FF-1, MM FF-2, and MM BIO-1d, adverse and significant fire hazards due to this alternative and the project as a whole would be mitigated. The fire risk under this alternative would be marginally reduced with the undergrounding of approximately 1,500 feet of TL682. Therefore, under NEPA, identified impacts to fire protection services would not be adverse, and under CEQA this impact would be less than significant with mitigation (Class II).

The partial undergrounding and relocation of TL682 would not require substantially more water than was identified in Section D.12.3.3 for construction and operation of SDG&E's proposed project. Therefore, similar to SDG&E's proposed project, approximately 5 to 10 million gallons of water would be required for construction, and 130,000 gallons of water per year would be used during operation; thus, PSU-1 impacts under this alternative would be similar to those identified in Section D.12.3.3. Impacts would be adverse under NEPA. Mitigation Measure MM HYD-2a has been provided that would mitigate this impact. Under CEQA, impacts would be considered less than significant with mitigation (Class II).

Impacts to telecommunication services would be the same as those discussed in Section D.12.3.3. AT&T and SDG&E would be required to coordinate regarding co-location of telecommunication services on the portion of the facilities that would be undergrounded and relocated. With implementation of MM PSU-1, adverse and significant impacts would be mitigated under NEPA, and considered less than significant with mitigation under CEQA (Class II).

Impact PSU-2: Impacts to waste facilities would reflect the same impact findings previously discussed in Section D.12.3.3. This alternative would not change the amount of wooden poles that would be removed along the existing TL682 and the project as a whole. In addition, as with SDG&E's proposed project, excavated soils from open trenching activities would be reused on site. Therefore, the waste produced during construction activities would be the similar to SDG&E's proposed project. Like SDG&E's proposed project, maintenance activities would be similar to those currently conducted by SDG&E; therefore, there would be no increase in demand for solid waste disposal during operation of this alternative. Therefore, identified impacts for waste facilities would not be adverse under NEPA and would be less than significant under CEQA (Class III).

Impact PSU-3: As discussed in Section D.12.3.3, electric transfers under this alternative would also be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Therefore, identified impacts for electric service disruptions would be the same as SDG&E's proposed project. Impacts would not be adverse under NEPA and would be less than significant under CEQA (Class III).

D.12.6 Additional Alternatives

D.12.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative described below would be in the same geographic region as SDG&E's proposed project, therefore, the environmental setting would be the same as that identified in Sections D.12.1 and D.12.2.

Environmental Effects

Impacts PSU-1, PSU-2, and PSU-3: Impacts would reflect the same impact findings previously discussed in Section D.12.3.3 for SDG&E's proposed project. As such, impacts to fire services, municipal water services, telecommunications, solid waste facilities, and disruption to electric service disruptions would essentially be the same as SDG&E's proposed project. Identified impacts to fire services, solid waste facilities, and disruption to electric service disruptions would not be adverse under NEPA and would be less than significant under

CEQA (Class III). With implementation of MM HYD-2a and MM PSU-1, adverse and significant water supply and telecommunication impacts identified would be mitigated under NEPA and under CEQA would be considered less than significant with mitigation (Class II).

D.12.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

The system upgrades proposed under this alternative would be in the same geographic service area as SDG&E's proposed project; therefore, the public service and utility setting would remain the same as that identified in Sections D.12.1 and D.12.2.

Environmental Effects

Impact PSU-1: Impacts would reflect similar impact findings previously discussed in Section D.12.3.3 for SDG&E's proposed project as removed facilities would be replaced with facilities requiring similar public services within the same geographic region. As with SDG&E's proposed project, there would be no new demand for increased fire protection services that require the construction of new or physically altered facilities in order to maintain acceptable levels of service. With implementation of APM HAZ-01 through APM HAZ-06, along with mitigation measures MM FF-1, MM FF-2, and MM BIO-1d, adverse and significant fire hazards due to this alternative and the project as a whole would be mitigated. The fire risk under this alternative would be slightly reduced as the existing TL626 line would be removed from a very high fire danger area, thereby indirectly decreasing potential demand on fire services. Therefore, under NEPA, identified impacts to fire protection services would not be adverse, and under CEQA this impact would be less than significant (Class III).

The partial removal of TL626 is not anticipated to require substantially more water than was identified in Section D.12.3.3 as removed facilities would be replaced with facilities having similar water requirements during construction and operation. Therefore, PSU-1 impacts under this alternative would be similar to those identified in Section D.12.3.3. Impacts would be adverse under NEPA. Mitigation Measure MM HYD-2a has been provided that would mitigate this impact. Under CEQA, impacts would be considered less than significant with mitigation (Class II).

Impacts to telecommunication services would be the same as those discussed in Section D.12.3.3. AT&T and SDG&E would be required to coordinate regarding co-location of telecommunication services on new facilities constructed under this alternative. With implementation of MM PSU-1, impacts would not be adverse under NEPA, and under CEQA would be less than significant (Class II).

Impact PSU-2: Impacts to waste facilities would reflect similar impact findings previously discussed in Section D.12.3.3 as removed facilities would be replaced with facilities requiring similar waste disposal services. Although, this alternative could increase the amount of wooden poles that would be removed due to both the removal of new poles in an existing ROW and the partial removal of poles from TL626, the landfills servicing this area have remaining capacity as shown in Table D.12-2. Like SDG&E's proposed project, maintenance activities would be similar to those currently conducted by SDG&E; therefore, there would be no increase in demand for solid waste disposal during operation of this alternative. Therefore, identified impacts for waste facilities during construction and operation would not be adverse under NEPA and would be less than significant under CEQA (Class III).

Impact PSU-3: As discussed in Section D.12.3.3, electric transfers under this alternative would also be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Therefore, identified impacts for electric service disruptions would be the same as SDG&E's proposed project. Impacts would not be adverse under NEPA and would be less than significant under CEQA (Class III).

D.12.7 No Action Alternative

Environmental Effects

Impacts PSU-1, PSU-2, and PSU-3: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional transmission lines in conformance with CAISO requirements and/or alternatives means of delivering electrical service elsewhere would result in similar construction and operation impacts as described in Section D.12.3, and therefore overall impacts to public services would not be reduced.

D.12.8 No Project Alternative

Environmental Effects

Impacts PSU-1, PSU-2, and PSU-3: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain, and therefore none of the construction impacts described in Section D.12.3 would occur. Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing

maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions; therefore, no impacts over existing conditions to existing fire protective services, municipal water providers, and telecommunications infrastructure, would occur.

D.12.9 Mitigation Monitoring, Compliance, and Reporting

Table D.12-3 presents the mitigation monitoring, compliance, and reporting program for public services and utilities for SDG&E’s power line replacement projects and alternatives.

Table D.12-3
Mitigation Monitoring, Compliance, and Reporting – Public Services and Utilities

Mitigation Measure	MM PSU-1 AT&T Commitments. Prior to receiving a Notice to Proceed with construction along each of the proposed power line replacement projects, SDG&E shall provide to the CPUC and Forest Service written commitment from AT&T confirming that AT&T facilities that are co-located on the proposed power line replacement projects will be relocated to SDG&E’s new facilities. Facilities will be transferred in a manner that avoids interruptions of telecommunications services to the greatest degree possible. The timing of the relocation activities will be reviewed and approved by both the CPUC and Forest Service.
<i>Location</i>	Along electric lines with co-located AT&T facilities.
<i>Compliance Documentation^(a) and Consultation</i>	a. Record of written verification from AT&T that telecommunication facilities will be relocated on new poles and the timing of the relocation of facilities. b. CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a. and b. Prior to notice to proceed
<i>Responsible Agency</i>	SDG&E’s <i>Proposed Project</i> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682), BIA and Campo Indian Tribe (TL629), BLM (TL629 and TL6923), CSP (C79) <i>Forest Service Proposed Actions</i> : CPUC and Forest Service, BIA and Inaja and Cosmit Tribe (TL626), City of San Diego (C157) <i>BIA Proposed Action</i> : CPUC and Forest Service, BIA and La Jolla Indian Tribe (TL682) <i>Partial Removal of Overland Access Roads</i> : Forest Service <i>Removal of TL626 from Service</i> : CPUC and Forest Service, BIA and Campo Indian Tribe (TL6931)

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

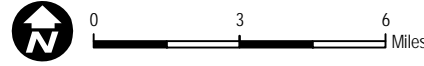
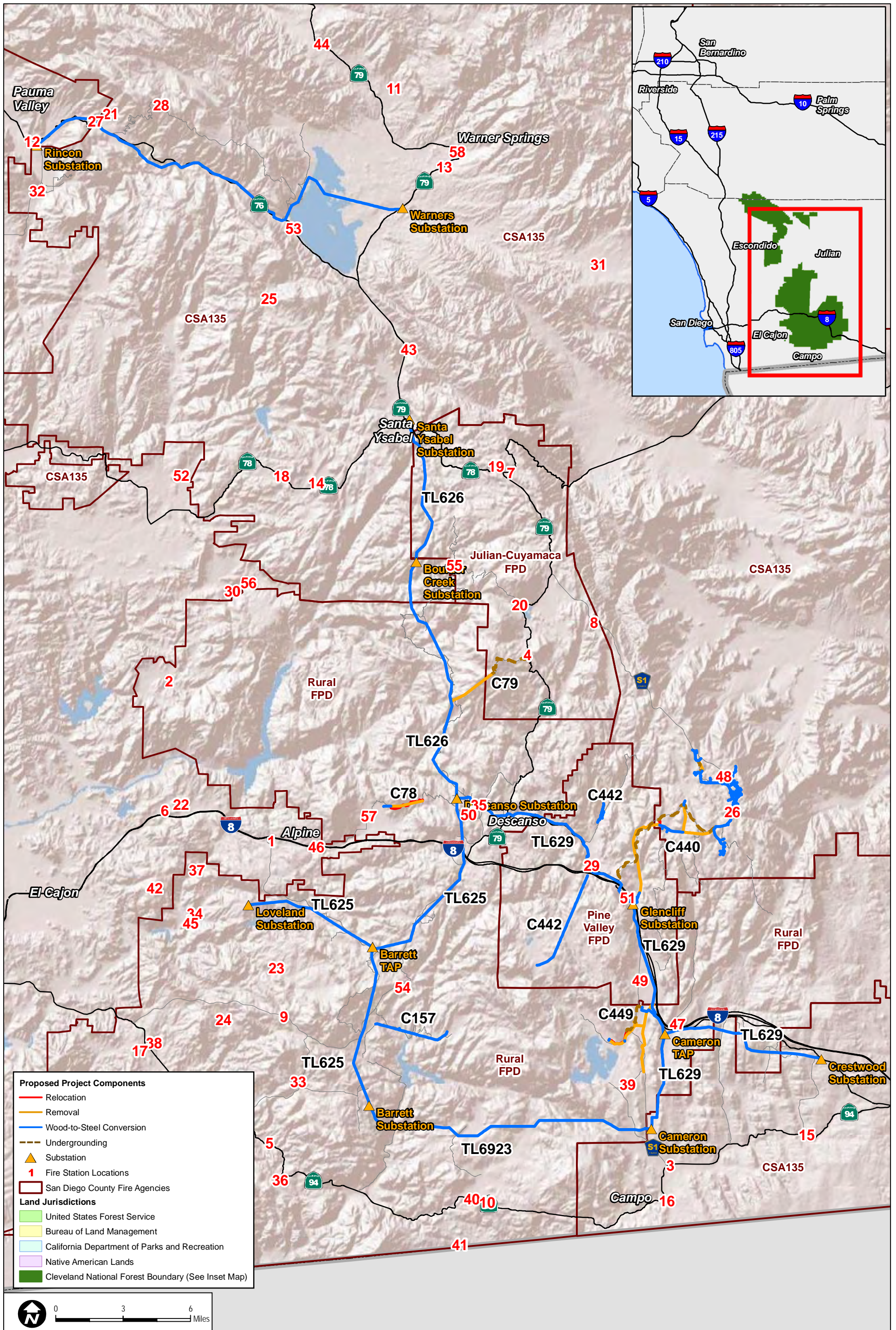
D.12.10 Residual Unavoidable Effects

Under NEPA, SDG&E’s proposed project and alternatives would result in adverse but mitigated impacts. Mitigation measures summarized in Section D.12.9, along with APMs provided in Sections D.12.3.2 and D.8.3.2 (fire hazards) would mitigate all impacts. Under CEQA, implementation of mitigation measures presented in Section D.12.9 would mitigate all public service and utility impacts to less than significant. Therefore, no residual effects would occur for SDG&E’s proposed project or alternatives.

D.12.11 References

- 14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.
- CalFire (California Department of Forestry and Fire Protection). 2007. San Diego County Fire Hazard Severity Zones in State Responsibility Areas (SRA). November 6, 2007.
- CalRecycle (California Department of Resources Recycling and Recovery). 2013a. “Facility/Site Summary Details: Imperial Landfill (13-AA-0019).” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/13-AA-0019/Detail/>.
- CalRecycle. 2013b. “Facility/Site Summary Details: Borrego Landfill (37-AA-0006).” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0006/Detail/>.
- CalRecycle. 2013c. “Facility/Site Summary Details: Imperial Solid Waste Site (13-AA-0001).” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/13-AA-0001/Detail/>.
- CalRecycle. 2013d. “Facility/Site Summary Details: Otay Landfill (37-AA-0010).” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0010/Detail/>.
- CalRecycle. 2013e. “Facility/Site Summary Details: Sycamore Sanitary Landfill (37-AA-0023).” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0023/Detail/>.
- CalRecycle. 2013f. “Facility/Site Summary Details: Ramona MRF and Transfer Station (37-AA-0925).” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/37-AA-0925/Detail/>.
- CalRecycle. 2013g. “History of California Solid Waste Law, 1985–1989 and 2010–Present.” Accessed April 1, 2013. <http://www.calrecycle.ca.gov/Laws/Legislation/CalHist/>.
- County of San Diego 2013. “San Diego County Fire Authority, Partnering Agencies.” Accessed April 1, . http://www.sdcounty.ca.gov/sdcfa/partnering_agencies.html.
- CPUC (California Public Utilities Commission) and BLM (Bureau of Land Management). 2008. *Final Environmental Impact Report/Environmental Impact Statement and Proposed Land Use Amendment for the Sunrise Powerlink Project*. SCH No. 2006091071. DOI Control No. FES-08-54. Prepared by Aspen Environmental Group. Agoura Hills, California: Aspen Environmental Group. October 2008. <http://www.cpuc.ca.gov/environment/info/aspen/sunrise/toc-feir.htm>.

- LAFCO (San Diego Local Agency Formation Commission). 2014. "Water Services – Regional Overview." Accessed February 13, 2014. http://sdlafco.org/images/ServicesMaps/ServicesMap_WaterOverview.pdf.
- SanGIS (San Diego Geographic Information Source). 2011. San Diego County Fuel Ages: 2011.
- SanGIS. 2012. "Eastern San Diego County Fire Protection Service Providers."
<http://www.sangis.org/index.html>.
- SDCWA (San Diego County Water Authority). 2014. "FAQ and Key Facts." Accessed February 13, 2014. <http://www.sdcwa.org/frequently-asked-questions-and-key-facts#t7n115>.
- SDG&E (San Diego Gas & Electric). 2014. Response A. 12-10-009 to Cleveland National Forest Power Line Replacement Projects PTC Energy Division Data Request 4 (Dated December 19, 2013). Response dated January 17, 2013.
http://www.cpuc.ca.gov/environment/info/dudek/CNF/DR4_Response_1.17.14.pdf.
- USDA (United States Department of Agriculture). 2005. *Land Management Plan*. USDA, U.S. Forest Service, Pacific Southwest Region. R5-MB-077. September 2005.



D.13 Recreation

This section discusses potential impacts to recreation areas and opportunities resulting from construction and operation of the proposed power line replacement projects along with the operations and maintenance activities proposed for authorization under the MSUP. Section D.13.1 provides a description of the existing environmental setting. The plans, policies, and ordinances applicable to the proposed project are introduced in Section D.13.2, and an analysis of SDG&E's proposed project impacts and a discussion of mitigation measures are provided in Section D.13.3. An analysis of the U.S. Forest Service (Forest Service) proposed action is provided in Section D.13.4, and Section D.13.5 discusses the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are discussed in Section D.13.6. The No Action Alternative is described in Section D.13.7, and the No Project Alternative is described in Section D.13.8. Mitigation, monitoring, compliance, and reporting information is provided in Section D.13.9. Residual effects of the project are summarized in Section D.13.10, and Section D.13.11 lists the references cited in this section.

Aside from impacts to recreation areas and opportunities analyzed in this section, a number of additional related topics are addressed elsewhere in this document. For example, visual resource impacts, specifically the visibility of project components from sensitive viewing locations, are described in Section D.2, Visual Resources; land use impacts including conflicts with applicable land use plans such as the Wilderness Act of 1964 are discussed in Section D.10, Land Use; and noise impacts are discussed in Section D.11, Noise.

D.13.1 Environmental Setting/Affected Environment

This section provides a description of recreation areas, facilities, and opportunities located near the various components of SDG&E's proposed project.

Methodology and Assumptions

Recreation areas and opportunities were identified through site visits, a review of aerial photographs, and a review of previously prepared environmental documents including SDG&E's *Revised Plan of Development, San Diego Gas & Electric Company, Master Special Use Permit Cleveland National Forest* (SDG&E 2013). Designated recreation areas, trails, and other recreational opportunities occurring within the Cleveland National Forest (CNF) were identified through a review of Part 2, Cleveland National Forest Strategy, of the Southern California National Forest Land Management Plan (LMP) (Part 2 is herein referred to as the CNF LMP) (Forest Service 2005); Forest Service field maps for the CNF (Trabuco, Palomar, and Descanso ranger districts) (Forest Service 2006); geographic information system (GIS data); and the Forest Service Cleveland National Forest website. Recreational opportunities within Cuyamaca Rancho

State Park were identified through a review of the State Park General Plan (California Department of Parks and Recreation 1986), GIS data, and from Cuyamaca Rancho State Park park brochure available from the state park website (California Department of Parks and Recreation 2010). County of San Diego (County) recreation areas, preserves, and trails were also identified through a review of the County of San Diego General Plan Conservation and Open Space Element (County of San Diego 2011a) and the Mobility Element (County of San Diego 2011b), and publicly available GIS data available from the San Diego Association of Governments (SANDAG). In addition, the community plans for areas of the County traversed by the power line replacement projects were also reviewed, as was the County of San Diego Trails Program Community Trails Master Plan (County of San Diego 2009a).

D.13.1.1 General Overview

The MSUP study area is located within the Trabuco, Palomar, and Descanso ranger districts within the CNF in southeastern Orange County, southwestern Riverside County, and San Diego County, with the majority of the study area including all of the proposed power line replacement projects located within and surrounding the Palomar and Descanso ranger districts in San Diego County (see Figure B-1, Regional Overview Map). Generally, the CNF is comprised of forested and mountainous to chaparral-covered semi-desert lands supporting undeveloped backcountry areas, federally designated wilderness, trail-based recreation, and limited areas of concentrated recreation residential development. National Forest System lands within the CNF are accessible and occasionally bisected by local roads, state highways, and interstates, and visitors are provided diverse recreational opportunities, including hiking, camping, mountain biking, horseback riding, and off-highway vehicle (OHV) areas. Primitive and unconfined recreation is permitted in designated wilderness, though motorized and mechanized forms of recreation are prohibited. Activities that are compatible with designated wilderness include non-motorized and non-mechanized forms of trail-based recreation including hiking, horseback riding, primitive camping, bird watching, and other activities that would not compromise the wilderness characteristics of designated areas.

Trabuco Ranger District

The Trabuco Ranger District lies at the boundary of Orange, Riverside, and San Diego counties and is generally comprised of steep, chaparral-covered topography supporting back country trail-based recreation including hiking, biking, and horseback riding, and developed campground and picnic sites. The eastern portion of the district includes the undeveloped east-facing slopes of the Santa Ana Mountains which are located adjacent to rapidly developing urban communities situated along the Interstate 15 (I-15) corridor, and primary visitor access to the ranger district is provided by Ortega Highway. In addition to developed recreation amenities (e.g., family and group campgrounds, trailheads) located in the vicinity of the Ortega Highway, federally

designated wilderness (i.e., the San Mateo Canyon Wilderness) is located in the southwest corner of the ranger district as is the Wildomar OHV area.

Palomar Ranger District

Comprised of Forest Service lands in southwestern Riverside County and northern San Diego County, the Palomar Ranger District includes the Agua Tibia Wilderness, several family and group camping facilities located in the vicinity of Palomar Mountain State Park and the Warner Springs area, picnic areas, and numerous trails, including the Pacific Crest National Scenic Trail and the Inaja Memorial Interpretative Trail (a designated National Recreation Trail) located near the community of Santa Ysabel. Located southeast of the city of Temecula in Riverside County and encompassing mountainous terrain in northern San Diego County, the Agua Tibia Wilderness offers approximately 25 miles of pathways, and the area features a diverse assemblage of vegetation communities including thick chaparral on steep hillsides and pine, fir, and oak trees on mountain tops. While camping and hiking is the primary recreational activity on Forest Service lands within the ranger district, the San Luis Rey picnic area and the Inaja Memorial picnic area are easily accessible off of State Route 76 (SR-76) and SR-79 and augment the trail-based recreation opportunities in the district.

Descanso Ranger District

Bisected by I-8 in eastern San Diego County, the Descanso Ranger District encompasses the heavily visited northwest portion of the Laguna Mountains (i.e., the Laguna Mountain Recreation Area), the Pine Creek Wilderness and Hauser Wilderness, the Corral Canyon OHV area, and segments of the Sunrise Scenic Byway (County of San Diego Route S1) and the Pacific Crest National Scenic Trail. Vegetation and topography of the area is variable with mountainous and steep pine-covered forested areas and wet meadows in the Laguna Mountain area, and chaparral, scrub oak, and rock outcropping-covered hillsides, dry valleys and steep canyons south of I-8. Developed recreational facilities within the Descanso Ranger District are relatively numerous and consist of family and group campgrounds, picnic areas, trailheads, and interpretive trails. Camping, mountain biking, hiking, trail running and off-roading are popular activities in the ranger district, and the elevation of the Laguna Mountain area provides opportunity for winter recreation (the area is heavily visited during snow events).

D.13.1.2 Environmental Setting for the Proposed Power Line Replacement Projects

Recreation opportunities in the general vicinity of SDG&E's proposed project are available within the CNF, State Park lands, and on other federal and local lands in the area. The Pine Creek Wilderness, Hauser Wilderness, and the Laguna Mountain Recreation Area, and

California State Parks (i.e., Palomar Mountain State Park, Cuyamaca Rancho State Park, and Anza-Borrego Desert State Park) provide opportunities for recreation. In addition, the Bureau of Land Management (BLM)-managed Sawtooth Mountain Wilderness and other public lands near Oriflamme Mountain and the Sawtooth Range are also located near the eastern extent of proposed power line replacement projects and provide limited recreational opportunities. All of the proposed power line replacement projects are located within and surrounding the Palomar and Descanso ranger districts in San Diego County, and therefore, the recreational opportunities within these areas form the primary focus of the environmental setting discussion below. Within CNF, several campgrounds, trails, and a designated OHV area are also located in the general vicinity of proposed power line replacement projects. Also, the Pacific Crest National Scenic Trail traverses lands within and outside of the CNF and several existing power lines (TL) and distribution circuits (C) including TL6923 and C449 span segments of the trail.

In addition to federal and state lands and facilities, County and local facilities including parks, trails and pathways, preserves, and lakes/reservoirs are located in the vicinity of proposed project and provide additional opportunities for recreation.

The following discussion details the recreation areas and trails located near or traversed by the proposed power line replacement projects. The discussion is organized by power line/ distribution circuit and identifies federal and state, tribal (if applicable) and County and local recreation areas and associated opportunities located near the associated power line/distribution circuit.

D.13.1.2.1 Power Lines

TL682

Recreation areas and trails located near or traversed by TL682 are depicted on Figure D.13-1, listed in Table D.13-1, and discussed in greater detail below.

Table D.13-1
Recreation Areas and Trails Located Near or Traversed by TL682

Recreation Area/Trail	Distance and Orientation to TL682
<i>Federal and State</i>	
San Luis Rey Picnic Area	Traversed by TL682 1.7 miles west of the SR-76/East Grade Road intersection
Pacific Crest National Scenic Trail	2.5 miles northeast of TL682 at Warner Substation
Palomar Mountain State Park	2.5 miles north of TL682 at South Grade Road/County Highway S6 intersection
Crestline Group Campground	2.5 miles north of TL682 at South Grade Road/County Highway S6 intersection
Fry Creek Campground	3.7 miles northeast of TL682 at South Grade Road/County

**Table D.13-1
Recreation Areas and Trails Located Near or Traversed by TL682**

Recreation Area/Trail	Distance and Orientation to TL682
	Highway S6 intersection
Observatory Campground	3.6 miles northeast of TL682 at South Grade Road/County Highway S6 intersection
<i>Tribal</i>	
Amago Sports Park and La Jolla Indian Campground (La Jolla Indian Reservation)	Traversed by TL682 near Sengme Oaks Road
<i>Local</i>	
Hellhole Canyon Preserve	3.5 miles south of TL682 at Rincon Substation
Oak Knoll Campground	900 feet north of TL682 at the SR-76/South Grade Road intersection
Lake Henshaw	0.2 mile east of TL682 East Grade Road/County Highway S7 intersection
SR-76 Pathway (proposed)	SR-76 traversed by TL682 at multiple locations

Federal and State Recreation Areas and Trails

As shown on Figure D.13-1, TL682 traverses private, Tribal, and Forest Service-managed lands between the Rincon Substation and the Warner Substation in northern San Diego County, and segments of the power line parallel SR-76. Federal and state recreation areas and trails located near or traversed by TL682 include:

- **San Luis Rey Picnic Grounds.** Managed by the Forest Service and located within the CNF, the San Luis Rey Picnic Grounds offer 17 picnic sites, water, vault toilets, and access to the San Luis Rey River (Wildernet 2013).
- **Pacific Crest National Scenic Trail.** Administered by the Forest Service, the Pacific Crest National Scenic Trail (PCT) is one of the original national scenic trails established by Congress in the 1968 National Trails System Act. The PCT travels a total distance of 2,650 miles from the U.S.–Mexico international border near Campo, California, and through California, Oregon, and Washington to the Canadian border. A segment of the PCT crosses SR-79 near the community of Warner Springs.
- **Palomar Mountain State Park.** The forest and meadow landscape of the state park provides opportunities for camping, picnicking, hiking, and fishing, and a number of vista points offer panoramic views of the ocean and desert (California Department of Parks and Recreation 2013a). While South Grade Road and East Grade Road are the primary access routes to the state park, there is a difference in elevation of approximately 2,000 vertical feet between the TL682 alignment in Pauma Valley and the southern park boundary.

- **CNF Managed Campgrounds.** The Crestline Group, Fry Creek, and Observatory campgrounds are accessible via SR-76, South Grade Road, and East Grade Road. Each of the campgrounds are located on Palomar Mountain and near the boundary of Palomar Mountain State Park but are managed by the CNF. According to the Forest Service, the Crestline Group Campground has a 50-person capacity and the Fry Creek and Observatory Campgrounds offer 20 and 42 camping sites, respectively (Forest Service 2014a, 2014b, 2014c).

North of SR-76 and west of Lake Henshaw, TL682 spans Forest Service lands within the Barker Valley Inventoried Roadless Area (IRA). IRAs consist of large, unfragmented tracts of roadless Forest Service lands potentially suitable for roadless area conservation such as through wilderness designation or other protection measures. While the Cleveland National Forest LMP amendment would redesignate the majority of land use zones in the Barker Valley IRA to Recommended Wilderness, and Recommended Wilderness is managed similarly to designated wilderness until a formal action is taken by Congress, the land use zones associated with the portions of the IRA crossed by TL682 are not proposed for designation as Recommended Wilderness. Rather, the areas traversed by TL682 would maintain the existing Back Country and Developed Area Interface land use zones.

Tribal Recreation Areas

As shown on Figure D.13-1, a segment of TL682 traverses the La Jolla Indian Reservation. Recreation areas on La Jolla Indian Tribal lands located near or traversed by TL682 include:

- **Amago Sports Park.** Located south of SR-76 and accessible via Sengme Oaks Road, the Amago Sports Park is a three-track public moto-cross park (Pro Ride 2013).
- **La Jolla Indian Campground.** Along with seven camping areas accommodating both tents and RVs, the campground features walking trails, a trading post, a sports bar, an arcade game room, and a dump station (La Jolla Band of Luiseno Indians 2013). Recreational tubing/floating on the stretch of San Luis Rey River within the boundaries of the La Jolla Indian Reservation is also offered (La Jolla Band of Luiseno Indians 2013).

Local Recreational Areas

Local recreation areas located near or traversed by TL682 include:

- **Hellhole Canyon Preserve.** The 1,900-acre preserve provides diverse recreational opportunities including 13.5 miles of non-motorized multi-use trails, an equestrian staging area, an American with Disabilities Act (ADA) compliant lookout point, 10 primitive campsites, and a small amphitheater (County of San Diego 2013a).

- **Oak Knoll Campground.** Located on private land, the Oak Knoll campground caters to RVs (over 30 RV sites are available) but also accommodates tent campers and offers several cabins for rent (Oak Knoll Campground 2014).
- **Lake Henshaw.** In addition to year-round fishing at Lake Henshaw, tent and RV camping opportunities are available at the Lake Henshaw Resort. The resort is located approximately 0.80 mile southeast of the SR-76 and East Grade Road intersection (Lake Henshaw Resort 2013).
- **State Route 76 Pathway (Proposed).** The County of San Diego has identified a proposed pathway along SR-76 through the entire Pala–Pauma Community Plan Area (County of San Diego 2009b).

TL626

Recreation areas and trails located near or traversed by TL626 are depicted on Figure D.13-2, listed in Table D.13-2, and discussed in greater detail below.

Table D.13-2
Recreation Areas and Trails Located Near or Traversed by TL626

Recreational Area/Trails	Distance and Orientation
<i>Federal and State</i>	
Inaja Memorial Picnic Area and National Recreation Trail	Located near the TL626 alignment approximately 1 mile south of the Santa Ysabel Substation. TL626 spans the San Diego River approximately 400 feet south of the trail alignment.
Cuyamaca Rancho State Park	1.5 miles east of TL626 at its intersection with C79 near Boulder Creek Road
Cedar Creek Road	0.65 mile west of TL626 at Three Sisters Waterfall Trailhead
Three Sisters Waterfall	The falls is accessed via a user-created trail located off Boulder Creek Road, approximately 0.65 mile west of TL626
California Riding and Hiking Trail	Traversed by TL626 approximately 0.5 mile north of the Descanso Substation
<i>Local</i>	
Santa Ysabel East Preserve	50 feet east of TL626 at the Santa Ysabel Substation
Santa Ysabel West Preserve	1.5 miles west of TL626 at the Santa Ysabel Substation
Trans-County Trail	Traversed by TL626 approximately 1.25 miles northwest of the confluence of Boulder Creek Road and Tule Springs Road.
Stallion Oaks Ranch Campground	50 feet east of TL626 near Boulder Creek Road/Burrell Way intersection
Boulder Oaks Road Pathway (existing)	Traversed by TL626 multiple times between C79 and the Descanso Substation

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by TL626 include:

- **Inaja Memorial Picnic Area and National Recreation Trail.** Operated by the Forest Service, the day-use picnic area experiences light use during the week and heavier use on the weekend, and includes a parking area, covered picnic tables, and restroom facilities. The picnic ground is a memorial to firefighters from the San Diego County Honor Camp who died fighting the Inaja Fire in November 1956 (Forest Service 2006). The Inaja National Recreation Trail, a short looped hiking trail originating near the picnic area, meanders through chaparral trail and offers scenic views of the San Diego River canyon and El Cajon Mountain (Forest Service 2006). The picnic area and trail are accessible via SR-78 and SR-79. Benefits of inclusion in the National Recreation Trails Program include access to funding opportunities available through program partners and the Federal Highway Administration. Additional information regarding the National Recreation Trails and the National Trails System Act is provided in Section D.13.2.1.
- **Cuyamaca Rancho State Park.** Recreation areas within the state park near the TL626 alignment primarily consist of Lookout Road which provides access to Cuyamaca Peak, the California Riding and Hiking Trail, and Paso Picacho Campground (California Department of Parks and Recreation 2010). State park recreation areas are discussed in greater detail below for C79.
- **Cedar Creek Road.** An approximately 13-foot-wide dirt road that traverses rugged terrain, Cedar Creek Road is one of only two “green sticker” routes in the CNF Palomar District (Fredrickson, pers. comm. 2014). Green stickers are issued to OHVs for year-round use at/on all California OHV riding areas and routes (DMV 2014). According to the Motor Vehicle Use Map for the CNF (Palomar and Descanso Ranger Districts), between Eagle Peak Road and Boulder Creek Road Cedar Creek Road is open to all vehicles (Forest Service 2009a).
- **Three Sisters Waterfall.** The Three Sisters Waterfall Trail is a 4-mile out and back, user-created trail primarily accessed via Boulder Creek Road. The informal staging area is located approximately 10 miles northwest of the SR-79 and Old Highway 80 intersection in Descanso (San Diego Reader 2008). The user-created trail leads to a triple set of waterfalls located in Boulder Creek Canyon and on a busy day, the strenuous route is heavily used by hikers (Fredrickson, pers. comm. 2014).
- **California Riding and Hiking Trail.** Short segments of the California Riding and Hiking Trail are aligned within Burrell Way and Boulder Creek and are spanned by TL626 north of the Descanso Substation (SANGIS 2010). The California Riding and Hiking Trail is a historic regional and state trail established in 1945 that provides

connectivity to Otay Lakes, Loveland Reservoir, and Cuyamaca Rancho State Park. It should be noted that there are no maintained segments of the trail in the CNF (Hawkins, pers. comm. 2014).

Portions of TL626 span the Cedar Creek publicly proposed undeveloped area and the Sill Hill IRA. As discussed in Section D.10, Land Use, the CNF LMP Amendment redesignates existing Back Country and Back Country Non-Motorized Use land use zones within these areas to Recommended Wilderness, and as such, lands would be managed similar to designated wilderness to maintain wilderness characteristics until a formal decision by Congress is made.

Local Recreation Areas

Local recreation areas located near or traversed by TL626 include:

- **Santa Ysabel East and West Preserves.** Operated by the County of San Diego, the 3,800-acre Santa Ysabel Preserves provide oak woodland and native grassland habitat and offer 18.5 miles of multi-use trails, several interpretative programs, and picnic/rest areas (County of San Diego 2013b). Access to the East Preserve West Vista Loop Trail via SR-79 is located approximately 1.2 miles north of the northern extent of TL626 at Santa Ysabel Substation.
- **Trans-County Trail.** The Trans-County Trail is a proposed 110-mile-long trail currently in the planning stage that seeks to utilize existing trails and private trails traversing several administrative jurisdictions and provide connectivity from Borrego Springs to the Pacific Ocean (San Diego Natural History Museum 2014). Approximately 70% of the proposed trail alignment would utilize existing trails and the remaining 30% would require the acquisition of private trails and/or lands and trail construction (San Diego Natural History Museum 2014). At this time, the Trans-County Trail exists as a conceptual corridor and no specific trail alignment has been established. Also, there are no maintained segments of the trail located in the CNF (Hawkins, pers. comm. 2014). **Stallion Oaks Ranch Campground.** The approximate 19-site campground is located on private lands and is accessible via Boulder Oaks Road (Forest Service 2006).
- **Boulder Creek Pathway (existing).** North of the Descanso Substation, TL626 traverses an existing pathway aligned with the right-of-way (ROW) of Boulder Creek Road. The pathway is identified in the Descanso Community Trails and Pathway Plan (County of San Diego 2009c).

TL625

Recreation areas and trails located near or traversed by TL625 are depicted on Figure D.13-3, listed in Table D.13-3, and discussed in greater detail below.

Table D.13-3
Recreation Areas and Trails located near or traversed by TL625

Recreational Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Pine Creek Wilderness	0.6 mile east of TL625 along Japatul Valley Road
Hauser Wilderness	2.4 miles east of TL625 at Barrett Lake Road
Horsethief Trailhead	1.5 miles east of TL625 at Carveacre Road
Cuyamaca Rancho State Park	1 mile east of TL625 at the Barrett Substation
California Riding and Hiking Trail	Traversed by TL625 multiple times between the Loveland Substation and Barrett Tap
<i>Local</i>	
Loveland Reservoir	Traversed by TL625 between the Loveland Substation and Barrett Tap and south of Japatul Road
Barrett Lake	2 miles east of TL625 at Barrett Lake Road
South Loveland Reservoir Trail, Japatul Road Pathway, Glens Trail, and North Loveland Reservoir Trail (proposed)	Traversed by TL625 between the Loveland Substation and Barrett Tap and south of Japatul Road (the Japatul Road Pathway is aligned within Japatul Road)
Wildwood Glen Lane Pathway (proposed)	Traversed by TL625 north of I-8 at Wildwood Glen Lane
Carve Acre Trail and the Japatul Trail (proposed)	Traversed by TL625 between Barrett Tap and Barrett Substation and west of Lyon Valley Road
Skye Valley Trail, the Barrett Lakes Road Pathway, Barrett Lake Road Pathway/Lake Trail Connector Trail, Lake Trail, Hunter's Camp Trail and the Manzanita to Lake Trail (existing)	Traversed by TL625 between Barrett Tap and Barrett Substation south of Carveacre Road

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by TL625 include:

- **Pine Creek Wilderness.** Designated in 1984, the 13,368-acre Pine Creek Wilderness features rolling to mountainous terrain and a mosaic of scrub, riparian, and woodland vegetation (Forest Service 2005). Managed by the Forest Service, the Pine Creek Wilderness is lightly used by recreationists, and near the TL625 alignment, the wilderness is legally accessed by recreationists via the Horsethief Trailhead (located off Lyons Valley Road in the community of Jamul) (Forest Service 2006). Hiking and primitive camping comprise the recreational opportunities available in the Pine Creek Wilderness.
- **Hauser Wilderness.** Also designated in 1984, the 6,834-acre Hauser Wilderness has mountainous terrain with steep slopes, and granite boulder and rock outcrops are common features in the landscape (Forest Service 2005). Hauser Canyon and Hauser Creek define the southern boundary of the wilderness; Skye Valley Road defines the northern boundary; and the PCT crosses the southeastern-most corner of the designated area. Near the TL625 alignment, the wilderness may be legally accessed via Skye

Valley Road and/or the Hauser Creek Trail. Hiking and primitive camping comprise the available recreational opportunities in the wilderness.

- **Horsethief Trailhead.** Located off Lyons Valley Road in the community of Jamul, the Horsethief Trailhead provides access to the Pine Creek Wilderness via Barrett Truck Trail/Forest Service Road 16S04 and the Secret Canyon Trail (Forest Service 2006). Barrett Truck Trail/Forest Service Road 16S04 has been improved to provide access to the Forest Service Jamul Fire Station; however, south of the fire station, the road appears to have been abandoned and is grown over by vegetation. A large parking/staging area for trail-based recreationists is provided off of Lyons Valley Road at Barrett Truck Trail.
- **Cuyamaca Rancho State Park.** Cuyamaca Rancho State Park is located east of the Descanso Substation on higher elevation terrain accessible via SR-79. As discussed in greater detail below for existing distribution circuit C79 (a considerable segment of C79 is located within state park boundaries), wilderness, camping, hiking, mountain biking and other recreational opportunities are available in the state park (California Department of Parks and Recreation 2010).
- **California Riding and Hiking Trail.** Near the TL625 alignment, the California Riding and Hiking Trail is aligned within existing roadway ROWs including Sequan Truck Trail and traverses primarily natural lands located south of Japatul Road and north of the Loveland Reservoir (SANGIS 2010).

In addition to crossing private and Forest Service-managed lands, TL625 briefly spans BLM-managed lands near the Barrett Substation. Based on a review of the *South Coast Resource Management Plan* (South Coast RMP), the applicable planning document for BLM lands in the project area, there are no developed recreational facilities on BLM lands near the Barrett Substation and TL625 alignment (BLM 1994).

TL625 does not traverse designated or recommend wilderness, and Forest Service lands within or near the alignment would not be subject to the land use zone redesignations proposed by the CNF LMP Amendment. Also, based on a review of publicly available information, BLM lands traversed by TL625 near the Barrett Substation would not be subject to reallocation or redesignation per the Draft South Coast RMP revision (BLM 2011).

Local Recreation Areas

Local recreation areas located near or traversed by TL625 include:

- **Loveland Reservoir.** A designated parking area and trailhead to access the Loveland Reservoir shoreline is located off Japatul Road. Public fishing access along a 5-mile portion of the shoreline is provided year-round through a partnership between the Sweetwater

Authority and the Forest Service (Sweetwater Authority 2013). Boats, floats, and water craft are not permitted at the Sweetwater Authority-managed reservoir. TL625 traverses the Loveland Reservoir trail south of the designated parking area.

- **Barrett Lake.** Owned and operated by the City of San Diego, Barrett Lake is located near the confluence of Cottonwood and Pine Valley creeks (City of San Diego 2014). The lake is open three days a week and while catch-and-release fishing with barbless artificial lures is permitted by the California Department of Fish and Wildlife (CDFW), it is monitored and highly regulated. Between May 1 and September 29, a reservation system is employed by the CDFW, and anglers are required to carry both a valid fishing license and day-use permit. Fishing regulations employed at the lake are designed to protect the last significant population of northern-strain largemouth black bass (*Micropterus salmoides*) in the area (City of San Diego 2014). Seasonal waterfowl hunting is also permitted at the lake but similar to fishing, hunting is regulated via a reservation system. Barrett Lake is regularly accessed via Barrett Lake Road and approximately 2.3 miles north of the Barrett Substation, TL 625 traverses the roadway.

Between the Loveland Substation and the Barrett Tap, TL625 traverses several proposed community trails identified in the Alpine Community Trails and Pathway Plan including the South Loveland Reservoir Trail, Glens Trail, and the North Loveland Reservoir Trail (County of San Diego 2009d). North of Interstate 8 at Wildwood Glen Lane, TL 625 traverses Wildwood Glen Lane Pathway, a proposed pathway identified in the Descanso Community Trails and Pathways Plan (County of San Diego 2009c). Additional proposed community trails identified in the Alpine Community Trails and Pathway Plan are traversed by TL625 between the Barrett Tap and the Barrett Substation including the Carve Acre Trail and the Japatul Trail. Lastly, south of the Barrett Tap, TL625 traverses existing trails and pathways identified in the Jamul-Dulzura Community Trails and Pathways Plan including the Skye Valley Trail, the Barrett Lake Road Pathway, the Barrett Lake Road Pathway/Lake Trail Connector Trail, the Lake Trail, the Hunter's Camp Trail and the Manzanita to Lake Trail (County of San Diego 2009g).

TL629

Recreation areas and trails located near or traversed by TL629 are depicted on Figure D.13-4, listed in Table D.13-4, and discussed in greater detail below.

**Table D.13-4
Recreation Areas and Trails Located Near or Traversed by TL629**

Recreational Area/Trail	Distance and Orientation
<i>Federal and State</i>	
California Riding and Hiking Trail	Traversed by TL629 at Boulder Creek Road
Pine Creek Trailhead	200 feet south of TL629 between Descanso Substation and Glenclyff Substation near the Old Highway 80/Pine Creek Road intersection
Noble Canyon Trailhead	1 mile northeast of TL629 between Descanso Substation and Glenclyff Substation at the Old Highway 80/Pine Creek Road intersection
Bear Valley OHV Trailhead	0.3 mile north of TL629 between Descanso Substation and Glenclyff Substation at the Pine Valley Road crossing
Bear Valley Trail	0.65 mile west of TL629 at the Glenclyff Substation atop higher elevation terrain
Pacific Crest National Scenic Trail	Traversed by TL629 south of Kitchen Creek
Boulder Oaks Campground	200 feet west of TL629 south of Kitchen Creek and along Old Highway 80
<i>Local</i>	
Descanso Valley Pathway (proposed), Pine Creek Pathway (existing), Meadow Trail (proposed) and Old Highway 80 Pathway (proposed)	Traversed by TL629 between the Cameron Substation and the Glenclyff Substation
Pine Valley Regional Park	250 feet east of TL629 between the Cameron Substation and the Glenclyff Substation at Corte Madera Road
La Posta Creek/Old Highway 80 Pathway (proposed)	Adjacent to TL629 south of Kitchen Creek and along Old Highway 80
Lake Morena County Park	1.2 miles west of TL629 at the Cameron Tap
Cameron Truck Trail (existing), La Posta Connector Trail (proposed), and the La Posta Road Pathway (existing)	Traversed by TL629 between Cameron Tap and the Crestwood Substation
Buckman Springs Road Pathway (existing), Private Road Trail (existing), Cameron Truck Trail (existing), La Posta Truck Trail West Trail (existing), and Kitchen Creek Trail (existing)	Traversed by TL629 between Cameron Tap and Cameron Substation

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by TL629 include:

- **California Riding and Hiking Trail.** Near the Descanso Substation, the California Riding and Hiking Trail is aligned within Boulder Creek Road and is traversed by TL629 (SANGIS 2010).
- **Pine Creek Trailhead.** Located off of Old Highway 80 between the communities of Guatay and Pine Valley, the Pine Creek Trailhead provides access to the Pine Creek Wilderness via the Secret Canyon Trail (Forest Service 2006). A parking area and

informational kiosks are provided at the trailhead. While TL6219 does not span the trailhead or associated parking area, the existing alignment and pole Z173123 are located approximately 200 feet south of the trailhead turn-off along Old Highway 80.

- **Noble Canyon Trailhead.** Accessible via Pine Creek Road, the Noble Canyon Trailhead provides access to the Noble Canyon National Recreation Trail and an informal network of trails located within the ridge and canyon landscape located east of Pine Valley and west of the Sunrise Highway (Forest Service 2006). The Noble Canyon National Recreation Trail provides connectivity to the PCT in the Laguna Mountain Recreation Area.
- **Bear Valley OHV Trailhead.** South of I-8 and accessed by Pine Valley Road, the Bear Valley OHV Trailhead provides access to OHV trails located on Forest Service lands (Forest Service 2006). While access is rather indirect, the Corral Canyon OHV area, Bobcat Meadow Campground, and Four Corners OHV trailhead area accessible via the Bear Valley OHV trailhead and Bear Valley Road. The parking area adjacent to the Bear Valley OHV trailhead is also located near the southern alignment of C442 and is therefore discussed in Section D.13.1.2.2.
- **Pacific Crest National Scenic Trail.** South of Kitchen Creek and east of the Boulder Oaks Campground, a short segment of the PCT is aligned adjacent to Old Highway 80 ROW (Forest Service 2006). The PCT also crosses Old Highway 80 approximately 200 feet south of Kitchen Creek. Approximately four existing TL629 poles are located adjacent to Old Highway 80 and the existing power line spans the PCT alignment twice.
- **Boulder Oaks Campground.** While TL629 does not span the campground and poles are not located within the facility, the alignment is located adjacent to Old Highway 80 in close proximity to campsites. The developed campground offers 30 camp units, accommodates RV and equestrian trailers, and provides access to the PCT (a parking area for PCT hikers is located within the campground). According to the Forest Service, the campground experiences light use and is closed between March and May during arroyo toad (*Bufo californicus*) breeding season (Forest Service 2013a).

Forest Service lands traversed by TL629 are not subject to land use zone redesignations of the CNF LMP Amendment. In addition, based on a review of publicly available information, BLM lands traversed by TL629 are not subject to reallocation or redesignation per the Draft South Coast RMP (BLM 2011).

Local Recreation Areas

Local recreation areas located near or traversed by TL 629 include:

- **Pine Valley Regional Park.** North of I-8 and east of Old Highway 80, the TL629 alignment passes within 250 feet of Pine Valley Regional Park. The County park offers

three picnic areas, basketball and tennis courts, ball fields, and a play area, and is accessible via Old Highway 80 (County of San Diego 2013c).

- **Lake Morena County Park.** At the Cameron Tap, TL629 is located approximately 1.2 miles east of the eastern boundary of Lake Morena County Park. Facilities at the County park include a developed campground featuring 86 sites and wilderness cabins. In addition, fishing is permitted; 8 miles of multi-use trails are provided; and the campground is located in close proximity to the PCT (County of San Diego 2013d). Developed facilities are generally located along the southern shore of the reservoir and are located approximately 3.5 miles southwest of the Cameron Tap. Facilities are accessible via Buckman Springs Road, Oak Drive, and Lake Morena Drive.

In addition to local parks, TL629 also traverses several County pathways and trails. East of the Descanso Substation and along Viejas Boulevard, TL629 traverses the Descanso Valley Pathway, a proposed community pathway located along Viejas Boulevard and identified in the Descanso Community Trails and Pathways Plan (County of San Diego 2009c). Further to the east, TL629 crosses Pine Creek Road and Old Highway 80 prior to interconnecting to the Cameron Substation. In the Pine Valley area, TL629 traverses trails and pathways identified in the Pine Valley Community Trails and Pathways Plan, including the Pine Creek Pathway (existing), the Meadow Trail (proposed), and the Old Highway 80 Pathway (proposed) (County of San Diego 2009e).

Between the Glencliff Substation and the Cameron Tap, TL629 is located adjacent to Old Highway 80, west of I-8 and east of Forest Service lands. South of Kitchen Creek and along Old Highway 80, TL629 is located in close proximity to the La Posta Creek/Old Highway 80 Pathway, a proposed pathway located along Old Highway 80 identified in the Campo/Lake Morena Community Trails and Pathways Plan (County of San Diego 2009f). East of the Cameron Tap, TL629 traverses the Cameron Truck Trail Trail (existing), the La Posta Connector Trail (proposed), and the La Posta Road Pathway (existing) (these facilities are identified in the Campo/Lake Morena Community Trails and Pathway Plan). Between the Cameron Tap and the Cameron Substation, TL629 traverses additional trails identified in the Campo/Lake Morena Community Trails, including the Buckman Springs Road Pathway (existing), the Private Road Trail (existing), the La Posta Truck Trail West Trail (existing), Cameron Truck Trail Trail (existing), and the Kitchen Creek Trail (existing) (County of San Diego 2009f).

TL6923

Recreation areas and trails located near or traversed by TL6923 are depicted on Figure D.13-5, listed in Table D.13-5, and discussed in greater detail below.

**Table D.13-5
Recreation Areas and Trails Located Near or Traversed by TL6923**

Recreational Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Hauser Wilderness	0.25 mile north of TL6923 at closest point (approximately 2.3 miles west of Lake Morena Drive)
Hauser Creek Trail	0.25 mile north of TL6923 at closest point (approximately 2.3 miles west of Lake Morena Drive)
Pacific Crest National Scenic Trail	Traversed by TL6923 on multiple occasions near the southeastern boundary of the Hauser Wilderness
Hauser Mountain Wilderness Study Area	0.60 mile south of TL6923 as measured from existing pole Z972866
<i>Local</i>	
Potrero Regional Park	3 miles southeast of TL6923 at Round Potrero Road
Lake Morena County Park	0.9 mile north of TL6923 at Hauser Creek Road
Manzanita to Lake Trail (existing) and the Barrett Lake Trail (existing)	Traversed by TL6923 south of Barrett Substation
Big Potrero Truck Trail (existing), the Big Potrero Spur Trail (existing), and the Lake Morena Drive Pathway (proposed)	Traversed by TL 6923 between Hauser Creek Road and the Cameron Substation

Federal and State Recreation Areas and Trails

Federal and state wilderness and recreation areas located near or traversed by TL6923 include:

- **Hauser Wilderness.** At its closest point, the TL6923 alignment is located approximately 0.25 mile south of the Hauser Wilderness and the Hauser Creek Trail. The Hauser Creek Trail follows Hauser Creek Road and is located just outside of southern boundary of the wilderness. Wilderness lands are located immediately north of the Hauser Creek Trail; however, there are no trailheads or designated trails off of the Hauser Creek Trail which would suggest that regular access to wilderness via the trail does not occur (Forest Service 2006).
- **Pacific Crest National Scenic Trail.** On the north-facing slopes of Hauser Canyon, TL6923 traverses a series of switchbacks and spans the PCT alignment on three separate occasions. This portion of the TL6923 alignment is located approximately 100 feet north of the Sunrise Powerlink which also traverses the PCT at three locations.
- **Hauser Mountain Wilderness Study Area.** As TL6923 descends into Hauser Canyon, the alignment is located in close proximity (approximately 0.60 mile) to BLM-managed lands comprising the Hauser Mountain Wilderness Study Area (WSA). The WSA encompasses 5,540 acres of remote and undeveloped BLM-managed lands, a significant portion of which comprise the broad summit of Hauser Mountain (BLM 2005).

Forest Service lands traversed by TL6923 are not subject to land use zone reallocations of the CNF LMP Amendment. In addition, based on a review of publicly available information, BLM lands traversed by TL6923 are not subject to reallocation or redesignation per the Draft South Coast RMP (BLM 2011).

Local Recreation Areas

Local recreation areas located near TL6923 include:

- **Potrero Regional Park.** Operated by the County of San Diego, Potrero Regional Park is located approximately 3 miles south of TL6923 at its crossing of Round Potrero Road. The 115-acre park offers camping, picnic areas, a playground, and a dance pavilion, and is accessible via SR-94, Potrero Valley Drive, and Potrero Park Drive (County of San Diego 2013f).
- **Lake Morena County Park.** The southern boundary of Lake Morena County Park is located approximately 0.9 mile north of TL 6923 at Hauser Creek Road. The TL6923 alignment spans Lake Morena Drive and Oak Drive which may be used to access the park’s campground and trails County of San Diego 2013d).

In addition to local parks, several trails and pathways are also traversed or are located near the TL6923 alignment. South of the Barrett Substation, TL6923 traverses trails identified in the Jamul-Dulzura Community Trails and Pathways Plan including the Manzanita to Lake Trail (existing), and the Barrett Lake Trail (existing) (County of San Diego 2009g). Southeast of the Hauser Wilderness, TL6923 traverses several trails and pathways including the Big Potrero Truck Trail (existing), the Big Potrero Spur Trail (existing), and the Lake Morena Drive Pathway (proposed) included in the Campo/Lake Morena Community Trails and Pathway Plan (County of San Diego 2009f).

D.13.1.2.2 Distribution Circuits

C79

Recreation areas and trails located near or traversed by C79 are depicted on Figure D.13-2, listed in Table D.13-6, and discussed in greater detail below.

Table D.13-6
Recreation Areas and Trails Located Near or Traversed by C79

Recreation Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Cuyamaca Rancho State Park and Cuyamaca Mountains State Wilderness	State park and state wilderness traversed by C79 between western park boundary and Cuyamaca Peak. East of Cuyamaca Peak, C79 would be located in non-wilderness state park lands and would be installed underground within Lookout Road east to Highway 79.

Table D.13-6
Recreation Areas and Trails Located Near or Traversed by C79

Recreation Area/Trail	Distance and Orientation
California Riding and Hiking Trail	Crosses Lookout Road and C79 underground alignment at Azalea Spring Fire Road
Paso Picacho Campground (within Cuyamaca Rancho State Park)	As close as 100 feet from proposed C79 underground alignment along Lookout Road
<i>Local</i>	
William Heise Regional Park	5 miles north of C79 at SR-79 crossing
Lake Cuyamaca	1.5 miles north of C79 at SR-79 crossing

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by C79 include:

- **Cuyamaca Rancho State Park.** The existing C79 alignment traverses the western slopes of Cuyamaca Peak (the peak is located on state park lands) and briefly spans the Cuyamaca Mountains State Wilderness (approximately 16 existing poles and 1,800 feet of C79 distribution line is located in state wilderness). As proposed, C79 would be removed from the western slopes of Cuyamaca Peak and placed underground within Lookout Road, a paved road used by motorists, hikers, and cyclists/mountain bikers to access the peak (California Department of Parks and Recreation 2010). The new C79 underground alignment would travel east from the peak to an existing 12 kV pole located adjacent to SR-79 near the entrance to the Paso Picacho picnic area and campground.
- **California Riding and Hiking Trail.** The California Riding and Hiking Trail is aligned within Fern Flat Fire Road and Azalea Springs Fire Road on state park lands (SANGIS 2010). The fire roads are separated by Lookout Road, and the proposed underground alignment for C79 would be located within the Lookout Road ROW. Additional fire roads are located near Lookout Road and may be used by hikers and mountain bikers.
- **Paso Picacho Campground.** Located on state park lands, Paso Picacho campground offers 85 campsites and several rental cabins. In addition, popular hikes to Cuyamaca Peak and Stonewall Peak start from the campground which also offers day use parking and picnic facilities (California State Parks 2013b).

The existing overhead alignment of C79 within the CNF does not traverse existing wilderness however, lands traversed by C79 are subject to the land use zone reallocations of the CNF LMP Amendment. More specifically, previously designated Back Country Non-Motorized land use zones located adjacent to the King Creek Research Natural Area (RNA) (i.e., lands within the Sill Hill IRA) would be redesignated Recommended Wilderness by the LMP Amendment. Also,

as stated in Section D.10.1.1, the Department of Parks and Recreation is in the process of preparing an updated General Plan for Cuyamaca Rancho State Park; however, the draft General Plan document is not yet available for review. As such, the future allocation of land use zones in the state park in the vicinity of the underground alignment of C79 along Lookout Road is not known at this time. According to the California Department of Parks and Recreation, the Preliminary General Plan and Draft EIR will be released for public review in early 2014 (California Department of Parks and Recreation 2013c).

Local Recreation Areas

Local recreation areas located near C79 include:

- **William Heise Park.** Located in Julian, the 929-acre William Heise Regional Park features 103 campsites, shower facilities, wilderness cabins, two youth areas and a playground and 10.75 miles of multi-use non-motorized trails (County of San Diego 2013e). The County of San Diego-operated park is accessible via SR-79 and Pine Hills Road.
- **Lake Cuyamaca.** The 110-acre Lake Cuyamaca offers a variety of recreational opportunities including fishing, hiking, boating, camping, wildlife viewing, duck hunting and picnicking and is located approximately 1.5 mile north of the eastern extent of C79 (Lake Cuyamaca 2013). The lake also features a small marina and restaurant and is accessible via SR-79.

C78

The Viejas Recreation Center is the to the C78 alignment and is located approximately 0.40 mile southwest of the western extent of existing distribution circuit alignment included in the proposed power line replacement projects. The existing distribution line alignment is also located approximately 0.5 mile north of Ma Tar Awa RV Camper Park (see Figure D.13-3 for location). The 133-acre Ma-Tar Awa RV Camper Park features a clubhouse, convenience store, and 99 RV hookups and campsites and is located on the Viejas Indian Reservation (Ma Tar Awa RV Camping Park 2013).

C157

Recreation areas and trails located near or traversed by C157 are depicted on Figure D.13-3, listed in Table D.13-7, and discussed in greater detail below.

Table D.13-7
Recreation Areas and Trails Located Near or Traversed by C157

Recreation Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Pine Creek Wilderness	Traversed by C157 east of Camp Barrett
Hauser Wilderness	Traversed by C157 east of Skye Valley Road
Horsethief Trailhead	2.1 miles north of C157 at extension to Camp Barrett
Horsethief Canyon Trail	Traversed by C157 east of Camp Barrett at Skye Valley Road
Corral Canyon OHV Area and Campground	2.5 miles east of C157 eastern extent
<i>Local</i>	
Barrett Lake	Traversed by C157 east of Camp Barrett
Skye Valley Trail (existing), Barrett Lake Valley Trail (existing)	Traversed by C157 between Skye Valley Road and Camp Barrett

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by C157 include:

- **Pine Creek Wilderness.** The existing C157 alignment traverses the southwestern corner of the Pine Creek Wilderness, and two support poles are located within the wilderness boundary. The portion of wilderness traversed by C157 is also crossed by Skye Valley Road/Forest Service Road 17S06 (Forest Service 2006).
- **Hauser Wilderness.** Near Skye Valley Road, the existing C157 alignment traverses the northwestern corner of the Hauser Wilderness, and seven support poles are located within the wilderness boundary. Wilderness near the C157 alignment consists of steep, chaparral covered terrain and a relatively narrow riparian canyon that drains to Barrett Lake (Forest Service 2006).
- **Horsethief Trailhead and Horsethief Canyon Trail.** At the extension of C157 to Camp Barrett, C157 is located approximately 2.1 miles south of the Horsethief Trailhead. Located off of Japatul Lyons Valley Road, the trailhead and Horsethief Trail provide hiking and equestrian access into Horsethief Canyon and is a major entryway into the Pine Creek Wilderness (San Diego Horse Trails 2013).
- **Corral Canyon OHV Area and Campground.** Although the eastern extent of C157 is located approximately 2.5 miles west of the Corral Canyon OHV Area and Campground, the areas are not publically accessible from the west via Skye Valley Road and Forest Service Road 17S06. The Forest Service Road is accessed controlled (several gates are located on the roadway), and the roadway is only used by residents of Skye Valley Ranch (Forest Service 2006).

Local Recreation Areas

Local recreation areas located near or traversed by C157 include:

- **Barrett Lake.** An approximate 700-foot segment of C157 traverses the upper reaches of Barrett Lake just east of Skye Valley Road (a portion of this span is located in the Pine Creek Wilderness). Fishing is permitted at Barrett Lake by the CDFW between May 1 and September 29 on a limited reservation basis (City of San Diego 2014).

The existing C157 alignment also traverses existing trails identified in the Jamul-Dulzura Community Trails and Pathways Plan including the Skye Valley Trail (existing) and the Barrett Lake Valley Trail (County of San Diego 2009g).

C442

Recreation areas and trails located near or traversed by C442 are depicted on Figure D.13-4, listed in Table D.13-8 and discussed in greater detail below.

Table D.13-8
Recreation Areas and Trails Located Near or Traversed by C442

Recreational Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Noble Canyon Trailhead and National Recreation Trail	Southern extent of C442 is located approximately 950 feet west of the trailhead and trail
Pine Creek Trailhead	Southern extent of C442 is located approximately 1.1 miles northeast of the trailhead
Bear Valley OHV trailhead	Northern extent of C442 located approximately 150 feet west of trailhead
Corral Canyon OHV Area and Campground	3.2 miles southeast of C442 southern extent in Corte Madera Valley
<i>Local</i>	
Pine Valley Regional Park	North of I-8, southernmost extent of C442 is located approximately 1.7 miles northeast of the park
Pine Creek Road Pathway and the Phantom Trails (existing)	Traversed by C442 along Pine Creek Road

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by C442 include:

- **Noble Canyon Trailhead and National Recreation Trail.** This 10-mile long multi-modal point-to-point trail provides connectivity to the PCT and the Laguna Mountain Recreation

Area (Forest Service 2006). A small parking area for the trailhead is located off of Pine Creek Road and approximately 950 feet east of the southern extent of C442 north of I-8.

- **Pine Creek Trailhead.** The southern extent of C442 north of I-8 is located approximately 1.1 miles northeast of the Pine Creek Trailhead. The trailhead provides access to multiple trails including the Las Bancas Pine Creek Trail located north of I-8 and the Secret Canyon Trail located south of I-8 and within the Pine Creek Wilderness.
- **Bear Valley OHV Trailhead.** The Bear Valley OHV Trailhead and trail is located approximately 150 feet east of the segment of C442 located south of I-8. Open to OHV use, Bear Valley Road travels south across Forest Service lands and provides connectivity to the Four Corners staging area and the Corral Canyon OHV Area (Forest Service 2013b).
- **Corral Canyon OHV Area and Campground.** Managed by the Forest Service, the Corral Canyon OHV Area offers over 51 miles of trails and roads, and the campground features 20 sites with fire rings and a hand pump with potable water (Forest Service 2013b).

Local Recreation Areas

Local recreation areas located near or traversed by C442 include:

- **Pine Valley Regional Park.** Managed and operated by the County of San Diego, the 17-acre Pine Valley Regional Park is located north of I-8 and is accessible off Old Highway 80. Notable amenities at the day-use park include three picnic areas, basketball and tennis courts, ball fields, and a play area (County of San Diego 2013c).

In addition, along Pine Creek Road, C442 traverses the existing Pine Creek Road Pathway and the existing Phantom Trails identified in the Pine Valley Community Trails and Pathways Plan (County of San Diego 2009e). It should be noted that the alignment of the Phantom Trails on Forest Service lands is coincidental with the alignment of the Noble Canyon National Recreation Trail.

C440

Recreation areas and trails located near or traversed by C442 are depicted on Figure D.13-4, listed in Table D.13-9, and discussed in greater detail below.

Table D.13-9
Recreation Areas and Trails Located Near or Traversed by C440

Recreational Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Laguna Mountain Recreation Area	The majority of C440 is located within Laguna Mountain Recreation Area

Table D.13-9
Recreation Areas and Trails Located Near or Traversed by C440

Recreational Area/Trail	Distance and Orientation
Laguna Mountain Visitor Center	C440 is located north and south of Sunrise Highway near the visitors center (several poles are located north of the visitor center's parking area)
Burnt Rancheria Campground	Located within 300 feet of C440 at Sunrise Highway/Mount Laguna Drive intersection
Laguna Campground	Traversed by C440
Desert View Interpretive Trail and Picnic Grounds	500 feet southwest of C440 at Sunrise Highway/Desert View Road
Little Laguna Lake	0.25 mile west of C440 in Laguna Campground
Big Laguna Lake	0.60 mile west of C440 in Laguna Campground
Lightning Ridge Trail	Traversed by C440 east of the Laguna Campground amphitheater
Big Laguna Trail	Traversed by C440 southeast of the Laguna Campground
Wooded Hill Group Campground and Nature Trail	200 feet north of C440 near Sunrise Highway/Wooded Hill Road
Pacific Crest National Scenic Trail	Traversed by C440 northeast of Sunrise Highway/Boiling Springs Road intersection
<i>Local</i>	
Al Bahr Shrine Camp	Traversed by C440
Pine Valley Regional Park	2 miles northwest of C440 as measured from the confluence of Sunrise Highway and Forest Service Road Drd 418660-2
Phantom Trails	Traversed by C440 on Forest Service lands located west of Sunrise Highway. Near Sunrise Highway, the Phantom Trails alignment coincides with Forest Service access Road Drd 418660-2.

Federal and State Recreation Areas and Trails

Federal and state recreation areas and trails located near or traversed by C440 include:

- **Laguna Mountain Recreation Area.** The majority of the C440 alignment is located in the Laguna Mountain Recreation Area. A federally designated recreation area located in close proximity to the San Diego metropolitan region, the Laguna Mountain Recreation Area offers a great diversity of recreational opportunities including camping, mountain biking, hiking, and fishing at the Little Laguna and Big Laguna Lakes. A number of campgrounds and trails are located in the Laguna Mountain Recreation Area and are discussed in detail below.
- **Laguna Mountain Visitor Center.** Operated by the Laguna Mountain Volunteer Association, the visitor center sells books, maps, and gifts, and a volunteer staff is

available to answer questions regarding areas to hike and points of interest. The visitor center is open Friday afternoons, Saturday, and Sunday (Laguna Mountain Volunteer Association 2014). The Kwaaymii Cultural Interpretive Trail, a short scenic trail, can also be accessed via the visitor center parking area. Existing C440 poles are located east and west of Los Huecos Road near the visitors' center (C440 spans the Kwaaymii Cultural Interpretive Trail on three separate occasions).

- **Laguna Campground.** The Laguna Campground is located in a woodland and meadow landscape and offers 104 total sites (tent camping and RV camping is permitted) in 5 loops (Forest Service 2014d). Additional amenities include flush toilet and shower facilities. The campground is accessible via Sunrise Highway, and C440 traverses the Sunny Loop portion of the campground and the periphery of the Hillside and Shady loops. The Laguna Campground access road off Sunrise Highway also provides access to the five-site El Prado Group Campground. The Laguna Campground provides access to the Lightning Ridge Trail (located east of the campground amphitheater) and the Big Laguna Trail which passes through pines and meadows and provides connectivity to the Noble Canyon Trail. Additional recreational amenities are located north of the campground and include the Penny Pines Interpretive Site Trail, Indian Creek Trail, and the Pioneer Mall picnic area.
- **Wooded Hill Group Campground and Nature Trail.** Managed by the Forest Service and comprised of 1 group site capable of accommodating up to 110 persons (Forest Service 2014e), the Wooded Hill Group Campground is located approximately 0.85 miles southeast of the Red Roost Volunteer Activity Center. Accessible from the group campground, the short Wooded Hills Natural Trail includes the highest wooded point on Laguna Mountain (Forest Service 2014f). C440 spans Wooded Hill Road just north of Sunrise Highway.
- **Burnt Rancheria Campground.** Along Sunrise Highway, C440 passes in relative close proximity to the Burnt Rancheria campground (C440 does not traverse the campground and no poles are located in the campground). The campground is open from May to October, experiences light use and can accommodate both tent and RV camping (Forest Service 2014g). A total of 109 sites are available and the campground also offers trail access to the Desert View Interpretive Trail and the PCT.
- **Pacific Crest National Scenic Trail.** Several poles are located near the trail alignment near the Desert View Overlook and north of Boiling Springs Road; the trail alignment is spanned three times by C440 (SDG&E 2013).
- **Desert View Interpretive Trail and Picnic Grounds.** The Desert View Interpretive Trail is located east of Sunrise Highway and follows the PCT alignment along the eastern slopes of Mount Laguna. The trail offers long views to the Anza-Borrego Desert, and the picnic grounds are located northeast of Los Heucos Road and are accessible via Sunrise Highway

(trail access is available from the picnic grounds or the Burnt Rancheria campground) (Forest Service 2014h).

In addition to the recreation areas and trails identified above, the Pine Mountain Trail and Pioneer Mall picnic area are located in the Laguna Mountain Recreation Area and provide additional opportunities for recreation.

Local Recreation Areas

Local recreation areas located near or traversed by C442 include:

- **Al Bahr Shrine Camp.** A private group camp leased since 1921, use of the Al Bahr Shrine Camp is available to all Shriners, masons and other affiliated masonic bodies, their families and guests (Al Bahr Shriners 2014). The camp is able to accommodate RVs and tent campers, and also offers cabins and dormitories for families and small groups. The Al Bahr Shrine Camp is traversed by C440, and several existing poles are located within the camp boundaries.
- **Pine Valley Regional Park.** The nearest county recreational facility, Pine Valley Regional Park, is located approximately 1.5 miles northwest of the southernmost extent of C440 undergrounding along Sunrise Highway. Access to Pine Valley Regional Park is available off of Old Highway 80 via the I-8 Sunrise Highway exit.

Also, the existing overhead C440 alignment spans the Phantom Trails, a County of San Diego designated trail network that coincides with the alignment of Forest Service access road Drd418660-2 located west of Sunrise Highway (SANGIS 2010).

C449

Recreation areas and trails located near or traversed by C449 are depicted on Figure D.13-4, listed in Table D.13-10, and discussed in greater detail below.

Table D.13-10
Recreation Areas and Trails Located Near or Traversed by C449

Recreational Area/Trail	Distance and Orientation
<i>Federal and State</i>	
Pacific Crest National Scenic Trail	Traversed several times by C449 between Buckman Springs Road and I-8
Boulder Oaks Campground	Traversed by C449 west of Old Highway 80
Corral Canyon OHV Area and Campground	2.5 miles west of C449 at Camp Morena
<i>Local</i>	
Lake Morena County Park	Park boundary traversed by C449 along Morena Stokes Road

Table D.13-10
Recreation Areas and Trails Located Near or Traversed by C449

Recreational Area/Trail	Distance and Orientation
Lake Morena County Park Campground	1.5 miles west of southernmost extent of C449 at Buckman Springs Road/Oak Drive.
La Posta Creek/Old Highway 80 Pathway (proposed), the Buckman Springs Road Pathway (existing), the Morena Stokes Road North Trail (existing), and the Oak Drive Pathway (proposed)	Traversed by C449 between Camp Morena and Interstate 8 (trails and pathways are located on existing roads)

Federal and Recreation Areas and Trails

Federal and state recreation areas located near or traversed by C449 include:

- **Pacific Crest National Scenic Trail.** The PCT is spanned by C449 at several locations between Buckman Springs Road and I-8 (SDG&E2013).
- **Boulder Oaks Campground.** C449 spans the southern and northern campground loops and a single pole is located in the northern loop (SDG&E 2013).
- **Corral Canyon OHV Area and Campground.** While not spanned by C449, a segment of the C449 alignment is located adjacent to and near Morena Stokes Road. OHV enthusiasts and campers may access the Corral Canyon OHV Area and campground via Buckman Springs Road and Morena Stokes Road (Forest Service 2006).

Local Recreation Areas

Local recreation areas located near or traversed by C449 include:

- **Lake Morena County Park.** As it pertains to C449, the proposed project includes the removal of existing wood poles and installation of new steel poles within and immediately adjacent to the northeastern portion of Lake Morena County Park. The southernmost extent of C449 is located approximately 1.5 miles east of the 86-site Lake Morena County Park Campground (County of San Diego 2013d), and in addition to developed camping facilities, primitive camping is permitted in a designated area along the northern lake shoreline located south of Camp Morena (a facility that is part of Naval Base Coronado).

C449 also traverse several trails and pathways identified in the Campo/Lake Morena Community Trails and Pathways Plan including the La Posta Creek/Old Highway 80 Pathway (proposed), the Buckman Springs Road Pathway (existing), the Morena Stokes Road North Trail (existing), and the Oak Drive Pathway (proposed) (County of San Diego 2009f).

D.13.2 Applicable Regulations, Plans, and Standards

The following section presents a general description of plans, policies, ordinances, and regulations applicable and relevant to SDG&E's proposed project.

D.13.2.1 Federal Regulations

USDA Forest Service

Forest Service Strategic Plan

The Strategic Plan provides direction that guides the Forest Service in delivering its mission to “sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations” (Forest Service 2007). Key items of the FY 2007–2012 strategic plan (a current plan covering FY 2013 is not yet available for public review) determined to be applicable to SDG&E's proposed project and associated with wilderness and recreation are listed below:

- **Goal 4.** Sustain and Enhance Outdoor Recreation Opportunities.
 - **Objective 4.1.** Improve the quality and availability of outdoor recreation experience.

To support Goal 4, the Forest Service notes that the condition of the land, recreation facilities, and transportation infrastructure must be considered and specially designated protected areas must be maintained (Forest Service 2007).

Southern California National Forests LMP

As stated in Section D.10, Land Use, the LMP consists of three interrelated parts that work together to “facilitate the use of adaptive management and the development of the management activities” in order to move the National Forests towards their desired outcome (Forest Service 2005a). Part 1 of the LMP identifies existing management challenges, strategic goals, and desired conditions; Part 2 consists of the CNF LMP; and Part 3 provides design criteria/forest plan standards and guidelines. The key items contained within Parts 1 through 3 of the Southern California National Forests LMP and applicable to wilderness and recreation are discussed below.

Part 1 Southern California National Forests Vision

While SDG&E's proposed project does not entail the provision of recreation uses, project components are located in the vicinity of existing recreation facilities on Forest Service lands. Further, the provision of recreation opportunities and meeting energy resource needs are goals and objectives discussed in the Forest Service Strategic Plan. Therefore, Forest Service goals and policies

pertaining to the provision of managed recreation in a natural setting are applicable. As such, the following goals of the vision document (Forest Service 2005a) are applicable to SDG&E's proposed project:

- **Goal 3.1.** Provide for Public Use and Natural Resource Protection.
- **Goal 3.2.** Retain a Natural Evolving Character within Wilderness.

Part 2 Cleveland National Forest Strategy (Cleveland National Forest LMP)

In addition to designating land use zones, the Cleveland National Forest LMP provides direction for the management of designated (i.e., existing) and recommended wilderness. Four Congressionally designated wildernesses are located in the CNF: Agua Tibia Wilderness (Palomar Ranger District), Hauser Wilderness, Pine Creek Wilderness (Descanso Ranger District), and San Mateo Canyon Wilderness (Trabuco Ranger District). Federally designated wilderness located near the proposed power line replacement projects is located south of I-8 and includes Hauser Wilderness and Pine Creek Wilderness. Recommended Wilderness within the CNF includes Cutca Valley (located adjacent to the Agua Tibia Wilderness), Pine Creek (located adjacent to the Pine Creek Wilderness), and Hauser South (located adjacent to the Hauser Wilderness).

The Southern California National Forests LMP and Existing and Recommended Wilderness are discussed fully in Section D.10, Land Use. In addition, potential conflicts with LMP and wilderness designations as they relate to the MSUP and the proposed power line replacement projects are discussed in Section D.10.

Forest-Specific Design Criteria

Forest-Specific Design Criteria included in Part 2 of the Cleveland National Forest LMP (Forest Service 2005b) applicable to wilderness and recreation includes the following:

- **CNF S20.** Limits of Acceptable Change methodology will be used to ensure an acceptable state of solitude.
- **CNF S21.** Limits of Acceptable Change methodology will be used to mitigate increases in wilderness resource degradation.

The Limits of Acceptable Change (LAC) methodology was proposed in 1985 by the Forest Service Intermountain Forest and Range Experiment Station in Ogden, Utah, as a means of quantitative wilderness planning and management (Forest Service 1985). Under the LAC system, the amount of change to be allowed in wilderness is defined explicitly by quantitative standards,

and the appropriate management activities needed to prevent further change are identified and management and monitoring procedures are established.

Appendix B, Program Strategies and Tactics, of Part 2 of the Southern California National Forests LMP describes detailed program strategies that the National Forests may implement to achieve desired conditions and goals. Strategies address species of concern management, prevention and control of invasive species, vegetation restoration, restoration of forest health, insect and disease management, watershed function and water management, and wilderness. Applicable wilderness-based strategies are listed below.

- **SD 1 Wilderness.** Protect and manage wilderness to improve the capability to sustain a desired range of benefits and values and so that changes in ecosystems are primarily a consequence of natural processes. Protect and manage the areas recommended for wilderness designation to maintain their wilderness values

Part 3 Design Standards

Design Standards contained in Part 3 of the LMP are not specifically applicable to wilderness and recreation, and therefore, they are not listed in this section.

Southern California National Forests LMP Amendment

In addition to revising land use zone allocations for select IRAs within the Angeles, Cleveland, Los Padres, and San Bernardino national forests, the Southern California National Forests LMP amendment also modifies existing LMP monitoring protocols pertaining to forest health, riparian condition, and biological resource condition. Under the land use zone reallocations proposed by the LMP amendment, 80,000 acres of newly classified Recommended Wilderness would be distributed among four new recommended wilderness areas in the Southern California National Forests (Forest Service 2013c).

The Southern California National Forests LMP Amendment and Recommended Wilderness is discussed fully in Section D.10, Land Use, which also addresses potential conflicts with the LMP Amendment as it relates to the MSUP and the proposed power line replacement projects.

Wilderness Act of 1964

Potential conflicts with the Wilderness Act of 1964 as it relates to the MSUP and the proposed power line replacement projects are discussed in Section D.10, Land Use.

National Trails System Act

The National Trails System Act was established by Congress in 1968 “in order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation” (16 U.S.C. 1241 et seq.). The act defined four categories of national trails: National Scenic Trails; National Historic Trails; National Recreation Trails; and connecting or side trails that provide additional points of public access to scenic, historic, and/or recreation trails. The Appalachian Trail and the Pacific Crest National Scenic Trail were designated as the initial components of the National Trails System. The PCT is administered by the Forest Service in partnership with the BLM, National Park Service, California State Parks, and the Pacific Crest Trail Association. Each agency and association is vital to ensure the effective management and protection the trail (Forest Service 2013d). In addition to the PCT, the 1.0-mile Inaja Memorial National Recreation Trail and the 10-mile Noble Canyon National Recreation Trail are located near power line replacement projects in the Palomar and Descanso ranger districts.

While National Scenic Trails and National Historic Trails may only be designated by an act of Congress, National Recreation Trails may be designated by the Secretary of the Interior or the Secretary of Agriculture in order to recognize “exemplary trails of local and regional significance” (National Recreation Trails 2014). Designation as a National Recreation Trail provides the support of the National Recreation Trails Program and offers a variety of benefits including promotion, technical assistance and access to funding opportunities available from program partners (National Recreation Trails 2014). Funding for trails available through the Federal Highway Administration and the U.S. Department of Transportation encourages states to steer available funds to projects on trails designated as National Recreation Trails (National Recreation Trails 2014).

Forest Service Manual 2300 – Recreation, Wilderness, and Related Resource Management

Chapter 2350, “Trail, River, and Similar Recreation Opportunities,” of Forest Service Manual 2300, contains objectives and policies regarding the establishment and management of National Forest System trails including National Recreation Trails and connecting and side trails. Section 2553.5, “Administration of National Recreation Trails,” contains general policies regarding National Recreation Trails and establishes criteria for trail designation. Uses other than outdoor recreation including power transmission, livestock drives, and logging operations are allowed on trails provided they do not conflict with the nature and purposes of the trail. In addition, when allowing uses other than recreation, scenery management considerations must be incorporated into trail authorizations (Forest Service 2009b).

Bureau of Land Management

The South Coast RMP and the Draft RMP revision are the applicable planning documents for BLM lands in the project study area (TL 625, TL6293, and TL 629 briefly traverse BLM lands). The South Coast RMP does not identify recreation areas on public lands within the project area; however, recreation management objectives within the San Diego County Management Area include the provision of low-impact recreation opportunities through the provision of facilities and services (BLM 1994). An additional objective of the RMP is the acquisition of private inholdings in the Hauser Mountain area to consolidate public land ownership and establish a natural open space and wildlife “canyon” corridor to connect Otay Mountain, Tecate Peak, McAlmond Canyon, and Hauser Mountain (BLM 1994). The Draft RMP revision identifies the Hauser Mountain Wilderness Study Area which coincides with contiguous BLM lands in the Hauser Mountain area. San Diego County is divided into two recreation management areas by the BLM, and public lands in the vicinity of Hauser Mountain are located in the Border Mountains Special Recreation Management Area (SRMA) and the Hauser-Potrero distinct management zone. According to the Draft RMP revision, no recreational facilities have been developed in the SRMA, and the Hauser-Potrero zone receives very little recreation use due to limited access (BLM 2011).

In addition, Appendix N to the Draft RMP also contains a consideration of public lands within the planning area with identified wilderness characteristics. Per Section 201 of the Federal Land Policy and Management Act, lands outside of designated wilderness or wilderness study areas are required to be inventoried during the RMP process to determine if they possess wilderness characteristics as an evaluation of potential wilderness designation. According to the BLM, in order for an area to qualify as lands with wilderness characteristics, it must possess sufficient size, naturalness, and outstanding opportunities for solitude and primitive and unconfined recreation (BLM 2012). During the draft RMP process, three public land parcels located adjacent to the Hauser Mountain Wilderness Study Area were inventoried and were determined to have wilderness characteristics. One inventoried area, Wilderness Character Unit 7, is located north adjacent to the Hauser Mountain Wilderness Study Area and south of the TL6923 alignment. While TL 6923 would be located near lands with wilderness characteristics, it would not span these lands.

Comprehensive Management Plan for the Pacific Crest National Scenic Trail

The purpose of the Comprehensive Management Plan for the Pacific Crest National Scenic Trail is to provide overall guidance and objectives for development and management of the trail (Forest Service 1982). The comprehensive plan is intended to be general, and more specific planning is accomplished at the BLM, National Park Service, and National Forest level in regards to the specific issues and opportunities for portions of the trail located in those jurisdictions.

The Comprehensive Management Plan for the Pacific Crest National Scenic Trail is discussed in more detail in Section D.10, Land Use.

D.13.2.2 State Regulations

California Wilderness Preservation System

The California Wilderness Preservation System pertains to state-owned lands designated by the legislature as “wilderness areas” or portions of the state park system designated as “state wilderness” by the State Parks and Recreation Commission. The California Wilderness Preservation System is discussed in Section D.10, Land Use.

Cuyamaca Rancho State Park General Plan

The intent of the existing Cuyamaca Rancho State Park General Plan is to “guide the Department of Parks and Recreation in protection of the [park’s] natural and cultural resources and in development of recreational facilities” (California State Parks 1986). The plan contains five elements, including the Land Use and Facilities Element which discusses recreational needs and trends in the state park and identifies recreational facilities in the surrounding area such as the Laguna Mountain Recreation Area and William Heise County Park. Further, within the park perspective discussion, the General Plan notes that use of the state park is particularly heavy on weekends and during the summer, and that the most well-defined recreation need is for additional areas for horse/people camping.

The California Department of Parks and Recreation is currently in the process of preparing an Environmental Impact Report to address potential impacts associated with changes that may be proposed to the state park in the Draft General Plan. The department is conducting a comprehensive update of the existing General Plan to reflect changing conditions and issues including alteration of the landscape resulting from the 2003 Cedar Fire (California Department of Parks and Recreation 2013c).

D.13.2.3 Regional Policies, Plans, and Regulations

Pursuant to Article 12, Section 8, of the California Constitution, SDG&E’s proposed project is not subject to local plans, policies, or regulations. The CPUC and Forest Service have independent jurisdiction and approval authority for the project; the CPUC is the lead agency under California law and the Forest Service is the lead federal agency. However, state agencies such as the CPUC are required to consider local land use policies and regulations when making decisions. Therefore, local plans and policies are listed below to assist in determining local land use compatibility.

County of San Diego General Plan

Originally undertaken in 1988, the County Board of Supervisors adopted a new comprehensive General Plan on August 3, 2011. In addition to the Conservation and Open Space Element (County of San Diego 2011a), which addresses the conservation, development, and use of natural resources (as well as the protection and preservation of open space and the provision of park and recreation resources) and the Mobility Element (County of San Diego 2011b), which addresses bicycle, pedestrian, and trails facilities including the County Trails Program, the General Plan includes subregional and community plans that contain policies specifically created to address the issues, characteristics, and visions of specific communities. Therefore, in addition to the Conservation and Open Space Element and the Mobility Element, the subregional/community plans applicable to lands traversed by SDG&E's proposed project would also be relevant to SDG&E's proposed project and are therefore discussed below.

San Diego County Trails Program's Community Trails Master Plan

Adopted in January 2005, the County Trails Program's Community Trails Master Plan guides the development of an interconnected regional and community trails and pathway system (County of San Diego 2009a). The Community Trails Master Plan is the implementing document for the County Trails Program and includes adopted trails and pathways plans for several communities throughout unincorporated San Diego County, including the communities of Alpine, Campo/Lake Morena, Descanso, Jamul-Dulzura, Pala/Pauma, Pine Valley, Potrero, and Valley Center. As discussed in Section D.13.1.1 for the various components of SDG&E's proposed project, several existing and proposed community trails and pathways located in the communities discussed above would be traversed by proposed power line replacement projects. As opposed to existing trails and pathways, proposed trails and pathways delineated in the various community trails and pathways plans depict corridors of general alignment that describes the general location of a future trail (County of San Diego 2009a). The specific alignment of the trail within the corridor will be identified at the time of actual acquisition, implementation and/or construction.

In addition to countywide policies in the Community Trails Master Plan, the community of Valley Center developed community-specific policies for their community trails and pathways plan (all other communities have adopted the countywide policies). However, policies included in the Valley Center Community Trails and Pathways Plan focus on design considerations for pathways adjacent to existing roads or new road construction, and therefore, the policies are not applicable to SDG&E's proposed project.

D.13.3 Environmental Effects

Indirect impacts to wilderness and recreation areas associated with changes to the existing visual landscape resulting from implementation of SDG&E's proposed project and the temporary generation of air quality pollutants and noise during construction and operation and maintenance activities are discussed elsewhere in this document. Please refer to Section D.2, Aesthetics and Visual Resources; Section D.3, Air Quality; and Section D.11, Noise, for a discussion of impacts to these issue areas.

D.13.3.1 Definition and Use of CEQA Significance Criteria/ Indicators under NEPA

The CEQA criteria and guidelines described as follows are also used as indicators of adverse effect under NEPA. Significance criteria, or thresholds, listed in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) used to determine the significance of whether a project would have a significant recreation-related effect on the environment include if the project would:

- a. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Criteria a) and b) above address questions related to increased use of recreation facilities and the construction and/or expansion of existing recreation facilities. However, SDG&E's proposed project would have no impact related to these issues for the following reasons:

- SDG&E's **proposed project does not induce population growth in the project area and does not involve a housing component.** While a temporary influx of construction workers would descend on the project area during construction, use of recreation facilities would be limited. In addition, SDG&E's proposed project would not result in a permanent increase in the local population which could in turn result in increased use of recreational facilities such that deterioration of those facilities would occur.
- SDG&E's **proposed project does not include the construction or expansion of recreational facilities.** New recreation facilities (or the expansion of existing facilities) are not included in the MSUP or the PTC to construct the proposed power line replacement projects.

For purposes of this analysis, the recreation significance standards in Appendix G of the CEQA Guidelines listed above have been modified as follows to better address the available recreational resources in the project area and address the potential impacts of SDG&E's proposed project.

Construction-Related Impacts

- Construction activities would temporarily reduce access and visitation to recreation areas.

Operations and Maintenance Impacts

- Presence of a project component would permanently preclude recreational activities.
- Presence of a project component would result in increased, unauthorized access to specially designated or restricted areas.

D.13.3.2 Applicant Proposed Measures

No Applicant Proposed Measures (APMs) were proposed by SDG&E to reduce direct impacts to wilderness and recreation.

D.13.3.3 Direct and Indirect Effects

Impact REC-1 Reduce access and visitation to recreation areas due to construction activities

A temporary influx of construction workers and vehicles on roads in the study area and the linear nature of proposed power line replacement projects suggest that proposed construction activities would temporarily impair movement or access along roads near existing power lines and distribution circuits which could in turn temporarily reduce access and visitation to local recreation areas.

The following describes the wilderness and recreation areas likely to be temporarily impacted by reduced access and/or visitation during construction of the proposed power line replacement projects.

TL682

During construction, temporary work sites (primarily pole work areas and stringing sites) may fully or partially encroach on several roadways, including Valley Center Road, SR-76, Sengme Oaks Road, and Campground Road, and may result in traffic delays along these roadways. Traffic delays may in turn temporarily reduce access to recreation areas accessible via SR-76 including Hellhole Canyon Preserve, Palomar Mountain State Park (including associated camping, picnicking, hiking, and fishing areas), campgrounds managed by the Forest Service (Crestline Campground, Fry Creek Campground, Observatory Campground), Amago Sports Parks, La Jolla Indian Campground, San Luis Rey Picnic Area, and Lake Henshaw. However, while construction activities adjacent to or within roadways may temporarily hinder vehicular movement on SR-76, implementation of APM TRANS-01, APM TRANS-04, and APM

TRANS-05 would minimize the severity of impacts associated with reduced access by conducting temporary lane closures during off-peak hours, coordinating lane closures with local jurisdictional agencies, and implementing a construction Traffic Control Plan. Also, as stated in Section B, Project Description, removal of existing wood poles and installation of replacement weathered steel poles via direct bury methods would take approximately 3 days at each pole location to complete, and conductor stringing would take approximately 3 hours to complete. Therefore, where pole work areas and stringing areas are located in close proximity to roads including Sengme Oaks Road and Campground Road, any restriction of access to or reduce visitation at nearby recreation areas would be limited and therefore not adverse under NEPA, and under CEQA, would be less than significant (Class III).

Lastly, where existing support poles are located in the boundary of a recreational area (two support poles are located in the boundary of the La Jolla Indian Campground), a 20–40 foot diameter work area around existing poles would be necessary to accommodate pole removal and installation activities. While construction activities are likely to be viewed as a nuisance by recreationists using the recreation area, the La Jolla Indian Campground is located adjacent to a major transportation corridor and poles are existing features in the campground. In addition, pole removal and installation activities would be brief and would not occupy campground sites or impede tubing opportunities in the San Luis Rey River. Implementation of Mitigation Measure (MM) MM LU-1 would also address potential adverse and significant impacts associated with reduced visitation during construction by providing advanced notification of construction activities to agencies with jurisdiction over local recreation areas/facilities and by posting notices of construction activities at public venues; therefore, impacts would be mitigated under NEPA and under CEQA, would be less than significant with mitigation (Class II).

While the PCT (more specifically, the Barrel Springs section of the trail located 2.5 miles north of the TL682 tie-in at Warner Substation) is not spanned by the TL682 alignment, several informal yet regularly used staging areas are located near Warner Springs and on Indian Flats Road. These staging areas are accessible via SR-76. Due to the presence of staging areas, the Warner Springs community is considered to be a PCT access point for hikers and other recreationists, and as such, construction activity along SR-76 may temporarily impact PCT access. Therefore, MM LU-1 would be implemented to address temporary access impacts to trail staging areas during construction. With implementation of MM LU-1, adverse and significant impacts would be mitigated under NEPA and under CEQA, impacts would be less than significant with mitigation (Class II).

The SR-76 Pathway is a proposed route. Further, because public ROW for the trail has not yet been acquired by the County, the pathway is not considered to be an established trail. As such, no impacts to this resource are anticipated.

TL626

During construction, pole removal, and installation activities would occur within 100 feet of SR-79 where TL626 spans the roadway. At these pole locations, direct bury methods would be employed to installed weathered steel poles, and the required 20–40 foot diameter work areas would not encroach on the SR-79 travel lanes or ROW. Guard structures or bucket trucks would be used during conductor installation; however, these presence of these facilities would not require temporary lane closures or substantial traffic delays. Therefore, pole removal and installation activities are not anticipated to result in substantial traffic delays along SR-79 near Santa Ysabel (potential temporary effects on vehicular movement would be further reduced through implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05), and impacts associated with reduced access to or visitation of Cuyamaca Rancho State Park, the Santa Ysabel East and West Preserves, and the Inaja Memorial Picnic Area and National Recreation Trail would not be substantial, and therefore not adverse under NEPA and under CEQA, would be less than significant (Class III).

While TL626 support poles are located near the Inaja Memorial Picnic Area and National Recreational Trail, poles are not located within the picnic area or on the trail and would not hinder picnicking or hiking opportunities. Pole replacement activities would be concentrated around locations of existing poles along the TL626 alignment and associated access roads which are located down slope of the picnic area and trail; therefore, visitation to these areas during construction would not be significantly affected, and would not be adverse under NEPA. Under CEQA, reduced visitation to these areas is considered a less-than-significant impact (Class III).

TL626 also spans the California Riding and Hiking Trail and the Boulder Creek Pathway on several occasions along Boulder Creek Road and Burrell Way. Several existing poles are located within and near the Boulder Creek Road ROW and pole work areas would encroach on the road ROW and trail alignments. However, pole removal and installation activities at each pole location would be relatively brief and would not require temporary closure of Boulder Creek Road and/or trail facilities. In addition, adequate space would be afforded to trail-based recreationists to pass the pole work areas. Further, implementation of MM LU-1 would also reduce potential adverse and significant conflicts between trail-based recreationists and construction activities. Therefore, with implementation of MM LU-1, the temporary reduction in visitation or use of the California Riding and Hiking Trail and the Boulder Creek Pathway near the Descanso Substation would be mitigated under NEPA, and under CEQA, would be less than significant with mitigation (Class II).

Construction activities along Boulder Creek Road may also result in temporary reduced access to other recreational amenities in the area. Both Cedar Creek Road (a green sticker OHV route) and the unofficial staging area used to access Three Sisters Waterfall are accessible via Boulder

Creek Road. Construction activities and the presence of construction vehicles on Boulder Creek Road could temporarily impede access to these amenities through temporary lane closures and reduced travel speeds. Implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05 would minimize the severity of impacts associated with reduced/impeded access by restricting temporary lane closures, coordinating lane closures with local jurisdictional agencies, and implementing a construction Traffic Control Plan. In addition, implementation of MM LU-1 would also reduce potential adverse and significant conflicts that could arise between recreationists and construction activities by implementing a construction notification plan and informing the public of the location and duration of construction activities. Therefore, with implementation of applicable APMs and notification protocol (i.e., MM LU-1), impacts would be mitigated under NEPA, and under CEQA, would be less than significant with mitigation (Class II).

TL625

South of I-8, pole removal and replacement activities would be concentrated along Japatul Valley Road. Due to the proximity of the TL625 alignment to the road, several pole work areas and stringing sites would likely encroach upon the roadway ROW and could result in temporary traffic delays. In addition, an approximate 1.5-acre staging area is located off of Japatul Valley Road approximately 0.5 mile south of I-8, and therefore, the roadway could experience an influx of construction traffic during the approximate 21 months required to complete the entirety of TL625 construction activities. Temporary traffic delays along the road could temporarily impair access to wilderness and recreation sites in the area including the Pine Creek Wilderness via the Horsethief Trail, Loveland Reservoir, and several County of San Diego trails located near the Loveland Reservoir. It should be reiterated that construction activities would not require the temporary closure of any portion of the Pine Creek Wilderness, the Horsethief Trailhead and Trail, or publicly accessible fishing areas of Loveland Reservoir. Rather, construction activities occurring along Japatul Valley Road could simply hinder opportunities to access wilderness and recreation sites in a timely manner. However, implementation of a Traffic Control Plan (APM TRANS-04) and additional traffic control considerations (see Section D.14, Transportation and Traffic, for additional detail) would minimize the potential for adverse and significant conflicts between motorists and construction activities that would in turn reduce impacts associated with impaired access to recreation areas. Therefore, this impact would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

West of the Barrett Tap, TL625 spans the California Riding and Hiking Trail and the main trail providing access to the publicly accessible northern and western shores of Loveland Reservoir. South of the Barrett Tap, the power line also spans several existing County of San Diego trails aligned along dirt roads that also support existing TL625 poles. East of Sequan Truck Trail, the

California Riding and Hiking Trail is aligned along the access road for four existing support poles (approximately 20–40 feet in diameter) that would encroach on the trail alignment. However, as joint use of the access road for recreational and utility use comprises the baseline condition and because individual pole removal and replacement activities would proceed relatively quickly at each pole location (approximately 3 days of work at each pole location is required), any reduced access or visitation/use of trail facilities would not be particularly long or substantial. Further, existing poles along the TL625 alignment in the area are located on established pads/disturbed areas accessible by existing access roads and replacement poles would not be installed on trail alignments. Therefore, impacts would not be adverse under NEPA, and under CEQA, impacts would be less than significant (Class III).

TL629

Temporary traffic delays and recreational areas access impairment could result from pole removal and replacement activities occurring within the Old Highway 80 and Pine Creek Road ROW. Recreationists use Old Highway 80 and Pine Creek Road to access several recreation areas in the surrounding Descanso–Guatay–Pine Valley area, including the Pine Valley Trailhead (which provides access to the Pine Valley Wilderness), the Pine Creek Pathway, the Noble Canyon Trailhead, and the Pine Valley Regional Park. South of the Pine Valley area, pole work areas would be concentrated along Old Highway 80 near the alignment of the PCT (three poles work areas would encroach upon the trail alignment along Old Highway 80) and near the Forest Service-managed Boulder Oaks Campground. An existing support pole is located near the entryway to the northern loop of the campground, and the associated pole work area would encroach on the entryway. While pole work areas and stringing sites may encroach on the roadway ROW and cause slower travel speeds and possible temporary traffic delays, implementation of traffic APMs (APM TRANS-01, APM TRANS-04, and APM TRANS-05) and a construction notification plan (MM LU-1) would minimize the potential for prolonged use and access conflicts. Further, individual pole removal and replacement activities at each identified pole location would proceed relatively quickly (approximately 3 days of work at each pole location is required), and therefore, any reduced access or visitation/use of trail facilities would not be particularly long or substantial. Under NEPA, adverse impacts would be mitigated, and under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

TL6923

The existing alignment of TL6923 spans County of San Diego trails that coincide with the ROW of existing dirt access roads. These “trails” include the Manzanita to Lake Trail in Tumeric Way and the Barrett Lake Trail in Barrett Lake Road (both located near the Barrett Substation) and the Big Potrero Truck Trail and Big Potrero Spur Trail (both located south of Lake Morena County

Park and near Hauser Canyon). The proximity of existing support poles to existing trails could entail pole work areas encroaching upon trail alignments; however, these instances would be limited to a single pole work area in the Big Potrero Truck Trail. In addition to supporting an existing trail alignment, Big Potrero Truck Trail provides access to the Hauser Wilderness and Hauser Creek Trail. As such, pole removal and replacement could temporarily affect access along Big Potrero Truck Trail, the Hauser Wilderness, and the Hauser Creek Truck Trail. As stated previously, the potential for prolonged access and visitation restrictions would be minimized due to the nature and duration of construction activities. More specifically, pole removal and replacement activities would be mobile and linear in nature and would take approximately 3 days to complete at each individual pole location. In addition, temporary detours around pole work areas could be provided in order to maintain access along access roads and trails. As such, conflicts arising between pole work areas and trail use would not be substantial along the TL6923 alignment, and therefore under NEPA would not be adverse. Under CEQA, impacts would be less than significant (Class III).

South of Hauser Canyon, TL6923 spans the PCT and several poles are located near the trail alignment. Due to the proximity of existing TL6923 poles to the PCT, several pole work areas and two stringing sites may encroach upon the trail alignment during pole removal and replacement activities. While existing support poles are visible from the trail and maintenance activities along TL6923 are assumed to occasionally occur, the presence of construction equipment and workers on/near the PCT would negatively affect the recreational experience. Further, the occasional nature of maintenance activities would suggest that section and through hikers on the PCT do not typically encounter power line work crews. Also, due to the proximity of pole locations to the trail, the required 20–40-foot pole replacement work areas could temporarily affect access along the PCT at pole Z972864. The potential for prolonged access restrictions along the PCT would be minimized due to the nature and short duration of construction activities at each pole location. Further, work areas would be located off the PCT to the extent possible and space would be provided for hikers and other recreationists to safely pass pole replacement work areas. In addition, MM LU-1 would be implemented to ensure that PCT hikers and other recreationists are notified of construction activities occurring near the trail. Because trail access near pole Z972864 would be maintained and trail users would be notified of the location and duration of construction activities, potential adverse and significant conflicts arising between pole work areas and trail users would not be adverse or particularly long in duration. Therefore, under NEPA, impacts would be mitigated and under CEQA, impacts would be less than significant with mitigation (Class II).

C79

The underground alignment of C79 would entail trench work within SR-79 immediately south of the entrance to the Forest Service-managed Paso Picacho Picnic Area parking lot and

Campgrounds. In addition to state park lands, SR-79 also provides access to Lake Cuyamaca, William Heise Regional Park, and several private RV camps and campgrounds near the regional park. The entirety of undergrounding activities along the new alignment within Lookout Road would take several days to complete; however, work within SR-79 would proceed quickly (SR-79 is approximately 30 feet wide), and measures such as the installation of steel plates over trenches to allow for safe passage of vehicles would be implemented as part of the Traffic Control Plan (APM TRANS-05) to minimize the potential for substantial traffic delays. In addition, APM TRANS-01 would be implemented to ensure that necessary lane closures occur during off-peak hours. Therefore, while access to state park and County recreation areas and trails could be temporarily reduced during construction of the C79 underground alignment, temporary closure of recreation areas would not be required, and traffic control measures would be implemented to ensure that access remains available. Therefore impacts would not be adverse under NEPA, and under CEQA, impacts would be less than significant (Class III).

The proposed underground alignment would cross the alignment of the California Riding and Hiking Trail at the intersection of Lookout Road and Azalea Spring Fire Road. The trail generally follows the alignment of Fern Flat Fire Road and Azalea Spring Fire Road and because trenches would be located in Lookout Road, temporary closure of the trail between West Mesa Loop Fire Road and Fern Flat Fire Road may be required to minimize the potential for adverse and significant conflicts between trail-based recreationists and construction activities. Construction activities may entail the temporary closure of Lookout Road to hikers and cyclists. Implementation of MM LU-1 would provide advanced notification of construction-related area closures and public access restrictions on Lookout Road; therefore any temporary restrictions to hikers and cyclists using Lookout Road would be mitigated under NEPA, and under CEQA would be less than significant with mitigation (Class II).

C78

Indirect access to the Ma Tar Awa RV Camper Park is available via SR-79, Riverside Drive, Viejas Grade Road, and Browns Road. Removal and relocation of C78 would occur along Viejas Grade Road (which is approximately 25 feet wide) which would restrict access along this road. However; because a more direct access to the camper park off I-8 at Willows Road would remain available, construction activities would not substantially reduce access or visitation to recreation sites. Therefore impacts would not be adverse under NEPA, and under CEQA, impacts would be less than significant (Class III).

C157

While pole removal and replacement of the existing overhead C157 alignment would occur within federally designated wilderness, construction activities would be concentrated on the

periphery of the Pine Creek Wilderness and Hauser Wilderness. In addition, given the steep terrain in the area and the lack of trailheads, staging or parking areas near the alignment and along Skye Valley Road and local Forest Service roads in the area, it is assumed that wilderness is not regularly accessed in the vicinity of the C157 alignment. There are no established trailheads into the Hauser Wilderness, and the closest trailhead providing access into the Pine Creek Wilderness—Horsethief Trailhead—is located approximately 0.60 mile north of the western extent of the C157 alignment. Therefore, construction activities would not reduce access to or visitation of the Pine Creek Wilderness and Hauser Wilderness, and impacts would not be adverse under NEPA, and would be less than significant (Class III) under CEQA.

C442

From the north via the Bear Valley Trail) is not anticipated. Construction vehicles would use Pine Valley Road to access the southern alignment of C442; however, construction staging would not occur at the Bear Valley OHV parking area located at the southern extent of Pine Valley Road, and direct access to the trailhead and trail would be maintained during construction. Therefore, impacts would not be adverse under NEPA, and would be less than significant (Class III) under CEQA.

C440

Underground trench work and impairment of traffic flow along Sunrise Highway (a new 8.4-mile underground segment of C440 would be installed along the highway) could hinder access to recreational facilities located in the Laguna Mountain Recreation Area including the Burnt Rancheria, Laguna and Wooded Hill campgrounds, the Desert View interpretive trail and picnic grounds, Little and Big Laguna lakes, numerous trails, and other recreation amenities (see discussion of C440 in Section D.13.1.2.2). In addition, because the PCT is accessible to hikers via the Desert View Trail, traffic delays on Sunrise Highway could also potentially reduce access to the PCT. Along Sunrise Highway, underground cables would be installed within narrow (i.e., 1.5-foot-wide by 1.5-foot-deep) duct banks, and construction would also entail the installation of splice vaults along the new underground segment of C440. Despite the presence of construction equipment, vehicles, and personnel in the Sunrise Highway ROW, access to the Laguna Mountain Recreation Area would not be substantially reduced. Construction activities would not require the closure of both travel lanes of the highway, and implementation of traffic control measures per APM TRANS-01 and APM TRANS-05 would ensure that access to the recreation area would be maintained. Therefore, impacts associated with undergrounding along Sunrise Highway and reduced access and visitation to recreation areas would not be adverse under NEPA and under CEQA would be less than significant (Class III).

Wood-to-steel replacement of existing C440 poles is proposed along the Sunrise Highway and within the Laguna Mountain Recreation Area. The C440 alignment also spans the highway on multiple occasions; however, existing poles are generally set back a sufficient distance from the highway to ensure that pole work areas would not encroach on the highway travel lanes. Pole work areas may encroach upon the highway ROW, but with implementation of traffic control measures, substantial traffic delays are not anticipated, and significant impairment of access to the Burnt Rancheria campground, the Laguna campground, and other recreational amenities in the area is not anticipated. In addition, pole work areas would be located near campgrounds and trails, but they would not be located within the campgrounds and would not encroach on trail alignments. Therefore, existing camping and trail-based recreation opportunities would be maintained during construction. As such, reduced visitation to the recreational amenities in the Laguna Mountain Recreation Area due to pole removal and replacement activities in the area is not anticipated.

Lastly, west of the Sunrise Highway and outside of the Laguna Mountain Area, the existing C440 alignment spans the Phantom Trails, a system of County trails whose alignment coincides with that of Forest Service access road Drd418660-2. Since the existing alignment spans the Phantom Trails, pole removal work areas would encroach on the trail alignment and could result in temporary reduction in trail access. It should be noted that Drd418660-2 is managed by the Forest Service, and the County has no land use authority over the road. While pole work areas would encroach on access road Drd418660-2, they would not encompass the entire width of the road, and adequate space would be available for recreationists to safely pass work areas. Therefore, reduced access and visitation would not be adverse under NEPA, and under CEQA would be less than significant (Class III).

C449

While the existing alignment of C449 spans the PCT, existing poles are not located on the trail alignment. Therefore, because pole removal work areas would not encroach on the trail alignment, access would be maintained during construction, and reduced visitation is not anticipated. Existing poles would be removed and replaced near the Boulder Oaks Campground (a new pole would be installed in the interior of the northern campground) but pole work areas would not encroach on existing campground sites, and activities would be of relatively short-duration at each individual pole location. In addition, pole work areas would not encroach upon campground access roads and would not result in the closure of individual sites or the entirety of the campground. Therefore, reduced access and visitation at the Boulder Oaks Campground resulting from construction activities would not be adverse under NEPA, and under CEQA would be less than significant (Class III).

Along Morena Stokes Road, the C449 alignment passes through the northeastern extent of Lake Morena County Park, and new replacement poles would generally be installed within the road ROW. Pole removal and replacement activities could encroach upon the roadway and temporarily hinder access to the regional park campground located along the north shore of Lake Morena. However, pole work area encroachment on Morena Stokes Road would be limited, removal and replacement of poles would be a relatively brief process, and implementation of traffic control measures per APM TRANS-01 and APM TRANS-05 would enable access to be maintained during construction.

The Morena Stokes Road North Trail is aligned along Morena Stokes Road, and the Corral Canyon OHV Area is accessible via Morena Stokes Road. Limited encroachment on the road is anticipated during pole removal/replacement and may require the temporary closure of travel lanes. Implementation of a traffic control plan per APM TRANS-01 and APM TRANS-05, as well as a construction notification plan (MM LU-1) would mitigate adverse access restrictions impacts under NEPA. Under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

Lastly, existing poles in the C449 alignment located near Buckman Springs Road would be removed near the Buckman Springs Road Pathway. Pole locations would be accessed via existing access roads or, where no ground access is available, by helicopter and would not encroach on the trail alignment. Therefore, because pole removal activities would not encroach on the Buckman Springs Road Pathway alignment, reduced access and visitation are not anticipated to occur.

Impact REC-2 Preclude recreational activities due to presence of a project component

Operations and maintenance of the proposed power line replacement projects along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, and other related ongoing maintenance tasks, similar to those currently conducted by SDG&E. These activities would not increase in duration or intensity with implementation of SDG&E's proposed project in such a way as to preclude access or visitation to wilderness and recreation areas managed by the Forest Service or those managed by other state and local agencies located in the vicinity of the CNF. Therefore, under NEPA, this impact would not be adverse, and under CEQA, this impact would be less than significant (Class III).

Impact REC-3 Result in increased, unauthorized access to specially designated or restricted areas

While SDG&E's proposed project would remove approximately 11.2 miles of exclusive use access roads within and outside the CNF and no new access roads are being proposed, project

approval would allow for the continued use of approximately 45 miles of exclusive use access roads required to construct the proposed power line replacement projects and operate and maintain SDG&E electric facilities within and outside the CNF. Where existing exclusive use access roads need repair, a grader would be used to blade and smooth access roads, and materials may be imported to improve access as required.

In instances where SDG&E's electric facilities proposed to be covered under the MSUP are located near specially designated or restricted areas, for the purpose of resource protection, the continued presence of these access roads along with repair/improvements to existing access roads may result in increased, unauthorized access. Unauthorized access is often characterized by OHV recreationists who use new and/or improved roadways to access restricted areas. For example, existing access roads off of East Grade Road, Skye Valley Road, and Boulder Creek Road to pole locations along the TL682, C157, and C79 alignments may require some preparation to facilitate pole removal and replacement activities. If not properly managed, maintained access roads could result in increased unauthorized access to the Barker Valley IRA (TL682), the Pine Creek Wilderness and Hauser Wilderness (C157), and the King Creek RNA and Cuyamaca Peak (C79). While access to some of the existing exclusive use access roads are managed by a locked gate such as the TL682 access road off East Grade Road (i.e., Henshaw Road) and C79 access off Boulder Creek Road, access to other exclusive access roads are not currently managed by locked gate. Although the presence of gates should presumably inhibit unauthorized access, gates must be maintained and consistently locked by SDG&E personnel to be effective in deterring unauthorized use. Based on comments received during public scoping for the project, SDG&E-maintained gates in the CNF are sometimes left unlocked by personnel, and OHV recreationalists occasionally trespass onto utility access roads. Unauthorized public use of utility access roads can result in damage to sensitive natural resources (biological, cultural, and hydrological resources) and can affect the visual integrity. Under NEPA, this impact would be considered adverse, and under CEQA, this impact would be considered significant. Therefore, MM REC-1 and MM REC-2 are provided. Implementation of MM REC-1 and MM REC-2 would ensure that specially designated or restricted areas are protected from unauthorized access and that existing access restrictions are maintained. Therefore, under NEPA, this impact would be mitigated, and under CEQA, impacts would be less than significant with mitigation (Class II).

MM REC-1 Installation of Gates and Appropriate Signage. To deter unauthorized access to specially designated or restricted areas via improved power line replacement project access roads, the project applicant shall install new Forest Service-approved gates (or other barriers, such as pipe rails, where appropriate) at the convergence of the improved access road and the primary roadway of access. In addition, appropriate deterrence signage approved by

the Forest Service shall be installed on gates. Maintenance of gates and signage shall be the responsibility of the project applicant.

MM REC-2 Enforcement of Proper Gate Protocol. During construction and ongoing operations and maintenance activities, gates shall be locked immediately after ingress and egress has occurred. Should SDG&E or Forest Service staff observe increased disturbance along the right-of-way resulting from unauthorized access due to unlocked gates, SDG&E will be required to restore these areas and review gate protocols with personnel. Alternatively, the Forest Service may require the project applicant to cost-recover restoration activities (i.e., trail maintenance and restoration) associated with the unauthorized access and damage to resources, should those restoration activities be carried out by the Forest Service.

D.13.4 Forest Service Proposed Actions

D.13.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Options 1 through 4 for the Forest Service proposed actions for TL626 would relocate a segment of the line toward the east of the existing alignment. The farthest relocation would take place approximately 2 miles to the east of the existing alignment. As this area is in the same geographic region as SDG&E's proposed project, the environmental setting for Options 1 through 4 would be similar to that identified in Sections D.13.1 and D.13.2. Recreational resources located closest to Options 1 through 4 consist of Cedar Creek Road (an OHV green sticker route) and the Three Sisters Waterfall.

Option 5, which would relocate a portion of TL626 around the Inaja Picnic area, is located in the same geographic region as SDG&E's proposed project, and therefore, the environmental setting would be similar to that identified in Sections D.13.1 and D.13.2.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts REC-1 and REC-2: Options 1 and 2 would reroute a segment of TL626 to the east along a new undisturbed ROW approximately 5.5 miles (Option 1) or 5.6 miles (Option 2) in length (Figure B-4a). All other project components would be the same. No campgrounds, trails, or other established recreational facilities are located in the vicinity of Options 1 and 2;

therefore, implementation of either of these options would not substantially alter the REC-1 and REC-2 impact conclusions identified in Section D.13.3.3. Similar to SDG&E's proposed project, implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05 would reduce the potential temporary effect on vehicular movement on roadways used during construction. Therefore, under NEPA, impacts would not be adverse, and under CEQA, impacts would be less than significant (Class III).

Impact REC-3: While Options 1 and 2 would avoid identified REC-3 impacts associated with TL626, as discussed in Section D.13.3.3, by removing existing access along TL626, they would also require construction of approximately 3.9 miles of new access roads to reach new pole locations, and therefore would increase impacts associated with unauthorized access (Impact REC-3) as discussed in Section D.13.3.3 for SDG&E's proposed project. Similar to SDG&E's proposed project, implementation of MM REC-1 and MM REC-2 would ensure that specially designated or restricted areas are protected from unauthorized access and that existing access restrictions are maintained. Therefore, under NEPA, this adverse impact would be mitigated, and under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

Options 3 and 4: Partial Underground/Overhead Relocation in/along Boulder Creek Road

Environmental Effects

Impacts REC-1 and REC-2: Option 3 would consist of placing a segment of TL626 underground in Boulder Creek Road and overland as shown in Figure B-4b. Option 4 would place the alignment overhead along Boulder Creek Road and overland as shown in Figure B-4a. All other project components would remain the same. No campgrounds, trails, or other established recreational facilities are located in the vicinity of Options 3 and 4; therefore, implementation of either of these options would not substantially alter the REC-1 and REC-2 impact conclusions identified in Section D.13.3.3. Similar to SDG&E's proposed project, implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05 would reduce the potential temporary effect on vehicular movement on roadways used during construction. Therefore, under NEPA impacts would not be adverse, and under CEQA, impacts would be less than significant (Class III).

Impact REC-3: While Options 3 and 4 would be primarily located along a public roadway, approximately 1 mile of new overhead ROW would be required between pole Z213680 and the northern terminus of the underground alignment on the periphery of the Pine Hills community (see Figure B-4b). Construction of a new access road along the new overhead ROW would likely be required to facilitate maintenance of this segment of new overhead line. MM REC-1 and MM REC-2 would be implemented to ensure that private lands and Forest Service lands in the area

are protected from unauthorized access. Therefore, under NEPA, this adverse impact would be mitigated, and under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts REC-1 and 2: Option 5 would reroute a less than 0.5-mile segment in close proximity to the existing TL626 alignment (Figure B-4c). All other project components would remain the same. Construction and operational impacts related to recreation would essentially be the same for the relocation of TL626 under Option 5 as described in Section D.13.3.3 for SDG&E's proposed project. However, pole replacement and undergrounding activities would occur closer to the Inaja National Recreation Trail and Inaja Memorial Picnic area under this option. Similar to SDG&E's proposed project, implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05 would reduce the potential temporary effect on vehicular movement on roadways used during construction activities in the vicinity of the Inaja picnic area. As Option 5 would be closer to the Inaja National Recreation Trail and Inaja Memorial Picnic area, implementation of MM LU-1 would reduce potential adverse and significant conflicts between trail-based recreationists and construction activities; therefore, impacts with regard to trail access would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact REC-3: Impact REC-3 would reflect impact findings similar to those discussed in Section D.13.3.3 for SDG&E's proposed project. Similar to SDG&E's proposed project, implementation of MM REC-1 and MM REC-2 would ensure that specially designated or restricted areas are protected from unauthorized access and that existing access restrictions are maintained (Impact REC-3). Therefore, under NEPA, this adverse impact would be mitigated, and under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

D.13.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.13.1 and D.13.2 describe the existing recreation setting associated with SDG&E's proposed project. The Forest Service proposed action for C157 would be in the same geographic

region as SDG&E's proposed project; therefore, the recreation setting would be the same as that identified in Sections D.13.1 and D.13.2.

Environmental Effects

Impacts REC-1 and REC-2: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along a new undisturbed ROW (Figure B-5a). All other project components would remain the same. As Options 1 and 2 occur essentially within the same area as SDG&E's proposed project, there would be no change to baseline condition associated with recreational uses; therefore, Impacts REC-1 and REC-2 would reflect the same impact findings as previously discussed in Section D.13.3.3 for SDG&E's proposed project. As discussed for SDG&E's proposed project, Impacts REC-1 and REC-2 would not be adverse under NEPA and under CEQA would be less than significant (Class III).

Impact REC-3: As Options 1 and 2 are located along public and private roadways and no new access would be required, no impacts resulting from unauthorized access (Impact REC-3) would occur.

D.13.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

Sections D.13.1 and D.13.2 describe the existing recreation setting associated with C440. This alternative would consist of undergrounding an additional approximately 14.3 miles of C440 proposed for replacement within existing roadways in the Laguna Mountain Recreation Area. As this area is in the same geographic region as SDG&E's proposed project, the recreation setting would be similar to that identified in Sections D.13.1 and D.13.2.

Environmental Effects

Impacts REC-1 and REC-2: Besides undergrounding C440 as proposed by the project, this alternative would consist of undergrounding an additional 14.3 miles of C440 within existing paved roadways in the Laguna Mountain Recreation Area. Construction activities would temporarily reduce access and visitation to recreation areas within the C440 study area as described in Section D.13.3.3. However, REC-1 and REC-2 impacts would be greater than those identified in Section D.13.3.3 for SDG&E's proposed project due to open trenching required for the undergrounding which would be more disruptive to access and visitation within the Laguna Mountain Recreation Area. As with SDG&E's proposed project, implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05, and MM LU-1 would reduce short-term and temporary potential adverse and significant conflicts between recreationists

and construction activities within the Laguna Mountain Recreation Area. Therefore, this impact would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact REC-3: This alternative is located along public roadways, and no new access would be required; therefore, no impacts resulting from unauthorized access (Impact REC-3) would occur.

D.13.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.13.1 and D.13.2 describe the existing recreation setting associated with TL682. The BIA proposed action for TL682 would relocate poles and underground approximately 1,500 feet on Tribal lands. As this area is in the same geographic region as SDG&E's proposed project, the recreation setting would be similar to that identified in Sections D.13.1 and D.13.2.

Environmental Effects

Impacts REC-1 and REC-2: This alternative would consist of placing approximately 1,500 feet the TL682 underground and relocating poles on Tribal lands. All other project components would remain the same. Impacts REC-1 and REC-2 would be slightly greater than those identified in Section D.13.3.3 for SDG&E's proposed project due to open trenching required for the undergrounding which would temporarily reduce access and visitation to the La Jolla Indian Campground. However, because the modifications proposed to TL682 under this alternative would occur primarily along the existing ROW for TL682, there would not be a change to the baseline condition including the number of affected recreation facilities. Therefore, as with SDG&E's proposed project, implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05, and MM LU-1 would reduce potential adverse and significant conflicts between recreationists and construction activities near the La Jolla Indian Campground. Therefore, this impact would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Impact REC-3: This alternative is located along public and private roadways, and no new access would be required; therefore, no impacts resulting from unauthorized access (Impact REC-3) would occur.

D.13.6 Additional Alternatives

D.13.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as SDG&E's proposed project; therefore, the recreation setting would be the same as that identified in Sections D.13.1 and D.13.2.

Environmental Effects

Impacts REC-1 and REC-2: This alternative would remove up to 10.5 miles of exclusive use access roads that are greater than 25% grade, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre). Recreation impacts would reflect similar findings as described in Impacts REC-1 and REC-2 discussed in Section D.13.3.3 for SDG&E's proposed project. Therefore, as with SDG&E's proposed project, impacts to access or visitation of recreation areas (Impact REC-1) and precluding access to recreation activity during operations and maintenance (Impact REC-2) for this alternative would not be adverse under NEPA. Under CEQA, the impacts would be less than significant (Class III).

Impact REC-3: While removal of certain segments of existing access roads would reduce identified REC-3 impacts as discussed in Section D.13.3.3, removal of certain segments of existing access roads would not change the conclusions discussed in Section D.13.3.3 regarding unauthorized use of access roads used for SDG&E's proposed project. As with SDG&E's proposed project, implementation of MM REC-1 and MM REC-2 would ensure that specially designated or restricted areas are protected from unauthorized access and that existing access restrictions are maintained. Therefore, under NEPA, this adverse impact would be mitigated, and under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

D.13.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace it with system upgrades; either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with the upgrades is described as follows:

- a. Upgrade the existing 69 kV TL6931 from Crestwood Substation to the Boulevard Substation. The setting associated with this component is largely described in SDG&E's

TL6931 Fire Hardening Project Proponent's Environmental Assessment (PEA) (SDG&E 2012). As described in SDG&E's PEA, the project site is not adjacent to or within the immediate vicinity of any recreational areas. The nearest regional recreation areas to the project site are located 2 to 6 miles to the east including the Carrizo Gorge Wilderness (2 miles), Anza-Borrego State Park (4 miles), and Jacumba Community Park (6 miles).

- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. As described in the Sunrise Powerlink EIR/EIS, the majority of the terrain associated along the proposed 3-mile TL625 loop-in consists of rugged and remote terrain. There are no designated campgrounds or recreational resources that would be spanned by or located within the immediate vicinity of the 3-mile loop-in.
- c. Convert portions of TL626 from 69 kV to 12 kV within the same study area as SDG&E's proposed project. Therefore, the environmental setting would be the same as that identified in Sections D.13.1 and D.13.2.

Environmental Effects

Under this alternative, a 6-mile portion of TL6931 would be reconstructed, or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of TL626 would be converted from 69 kV to 12 kV.

The Reconstruction of TL6931

Impacts REC-1 and REC-2: Reconstruction of TL6931 would consist of construction as well as operations and maintenance activities similar to that described for the project. Because no campgrounds or recreational resources are located within the immediate vicinity of TL6931, there would be no impacts to access or visitation of recreation areas (Impacts REC-1 and REC-2); therefore, impacts would not be adverse under NEPA, and under CEQA the impacts would be less than significant (Class III)..

Impact REC-3: Removal of TL626 and associated access roads would avoid identified REC-3 impacts associated with TL626, as discussed in Section D.13.3.3. This alternative is located along public and private roadways, and no new access would be required; therefore, no impacts resulting from unauthorized access (Impact REC-3) would occur.

Development of the New 3-mile Loop-in of TL625

Impacts REC-1 and REC-2: Development of the new TL625 loop-in would consist of similar construction as well as operations and maintenance activities as that described for the project in areas of rugged terrain. As no campgrounds or recreational resources are located within the immediate vicinity of the TL625 loop-in, there would be no impacts to access or visitation of recreation areas (Impacts REC-1 and REC-2); therefore, impacts would not be adverse under NEPA, and under CEQA the impacts would be less than significant (Class III).

Impact REC-3: Removal of TL626 and associated access roads would avoid identified REC-3 impacts associated with TL626, as discussed in Section D.13.3.3. Due to the rugged terrain, helicopters would be used to construct as well as operate and maintain the proposed TL625 loop-in. Because no new access would be required, no impacts resulting from unauthorized access (Impact REC-3) would occur.

Convert Segments of TL626 from 69 kV to 12 kV

Impacts REC-1 and REC-2: Conversion of segments of TL626 to 12 kV would consist of similar construction as well as operations and maintenance activities as that described for the project. Therefore, Impacts REC-1 through REC-2 would reflect similar impact findings previously discussed in Section D.10.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of APM TRANS-01, APM TRANS-04, and APM TRANS-05 would reduce the potential temporary effect on vehicular movement on roadways used during construction. Therefore, under NEPA, impacts would not be adverse, and under CEQA, impacts would be less than significant (Class III).

Impact REC-3: While Impact REC-3 would reflect similar impact findings previously discussed in Section D.13.3.3 for SDG&E's proposed project, this impact would be reduced due to the removal of the remaining portion of TL626 and associated overland access. As with SDG&E's proposed project, implementation of MM REC-1 and MM REC-2 would be required to ensure that specially designated or restricted areas are protected from unauthorized access and that existing access restrictions are maintained. Therefore, under NEPA, this adverse impact would be mitigated, and under CEQA, significant impacts would be reduced to less than significant with mitigation (Class II).

D.13.7 No Action Alternative

Environmental Effects

Impacts REC-1 through REC-3: Under the No Action Alternative, the MSUP would not be issued and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed

lands as well as develop additional power line upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E’s proposed project would be constructed and removal of the electric lines and associated access roads within the CNF would avoid identified REC-3 impacts, as discussed in Section D.13.3.3, the development of additional power lines in conformance with California Independent System Operator (CAISO_ requirements and/or alternative means of delivering electrical service elsewhere would result in similar construction impacts (as REC-1 and REC-2 impacts), as described in Section D.13.3.

D.13.8 No Project Alternative

Environmental Effects

Impacts REC-1 through REC-3: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain. Therefore, none of the construction impacts described in Section D.13.3 would occur. Operation and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions, and therefore, no impacts over existing conditions to recreation areas, facilities, and opportunities located near the various components would occur. The existing use of SDG&E’s access roads for unauthorized access (Impact REC-3) would continue.

D.13.9 Mitigation Monitoring, Compliance, and Reporting

Table D.13-11 presents the mitigation monitoring, compliance, and reporting program for recreation for the power line replacement projects and alternatives.

Table D.13-11
Mitigation Monitoring, Compliance, and Reporting – Recreation

Mitigation Measure	MM REC-1	Installation of Gates and Appropriate Signage. To deter unauthorized access to specially designated or restricted areas via improved power line replacement project access roads, the project applicant shall install new Forest Service-approved gates (or other barriers, such as pipe rail, where appropriate) at the convergence of the improved access road and the primary roadway of access. In addition, appropriate deterrence signage approved by the Forest Service shall be installed on gates. Maintenance of gates and signage shall be the responsibility of the project applicant.
<i>Location</i>	Where determined necessary by Forest Service	
<i>Compliance Documentation^(a) and Consultation</i>	a.	SDG&E to install gates and appropriate signage as identified by the Forest Service to deter unauthorized access (locations to be reasonable related to potential unauthorized access points along improved power line replacement access roads).

Table D.13-11
Mitigation Monitoring, Compliance, and Reporting – Recreation

	b.	CPUC/Forest Service Monitor: Line item in compliance monitoring report
<i>Timing</i>	a.	Prior to initiation of construction activities.
	b.	Maintained during construction, operations and maintenance.
<i>Responsible Agency</i>	Forest Service	
Mitigation Measure	MM REC-2	Enforcement of Proper Gate Protocol. During construction and ongoing operations and maintenance activities, gates shall be locked immediately after ingress and egress has occurred. Should SDG&E or Forest Service staff observe increased disturbance along the right-of-way resulting from unauthorized access due to unlocked gates, SDG&E will be required to restore these areas and review gate protocols with personnel. Alternatively, the Forest Service may require the project applicant to cost-recover restoration activities (i.e., trail maintenance and restoration) associated with the unauthorized access and damage to resources, should those restoration activities be carried out by the Forest Service. .
<i>Location</i>	Along all exclusive use access roads with existing and new gates on Forest Service managed-lands.	
<i>Compliance Documentation^(a) and Consultation</i>	a.	SDG&E will provide access and gate monitoring throughout construction, maintenance, and operations. SDG&E will notify the Forest Service of roadway damage or off-site disturbance suspected to be caused by unauthorized access and will provide the Forest Service with proposed restoration activities for damaged areas. The Forest Service may request additional restoration efforts specific to the damaged/disturbed area caused by unauthorized access if determined necessary.
	b.	SDG&E will provide documentation of all pre- and post-restoration activities (with respect to this measure) to the Forest Service upon completion.
	c.	Prior to operations, SDG&E will provide the Forest Service with a maintenance schedule in order to ensure gates and locks are kept in good working order/condition.
<i>Timing</i>	a. b. and c.	Throughout construction, operations, and maintenance activities
<i>Responsible Agency</i>	Forest Service	

^a All compliance documentation and consultation records to be available for CPUC and Forest Service staff review upon request.

D.13.10 Residual Unavoidable Effects

Under NEPA, SDG&E’s proposed project and alternatives would result in adverse but mitigated impacts. Mitigation measures presented in Section D.13.9 would mitigate all impacts. Under CEQA, implementation of mitigation measures presented in Section D.13.9 would mitigate all recreation impacts to less than significant. Therefore, no residual unavoidable effects would occur for SDG&E’s proposed project or alternatives.

D.13.11 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

16 U.S.C. 1241–1249. National Trails System Act of 1968, as amended.

Al Bahr Shrine Camp. 2014. “Al Bahr Shriners Shrine Camp.” Al Bahr Shriners, Shriners International. Accessed February 24, 2014. <http://www.albahrshrine.org/shrinecamp.html>.

BLM (Bureau of Land Management). 1994. *South Coast Resource Management Plan and Record of Decision*. Palm Springs, California: BLM, California Desert District. June 1994.

BLM. 2005. “Environmental Assessment, EA Number CA-660-06-05, Hauser Mountain Wilderness Study Area Route Improvement Project – Supplement.” BLM Palm Springs-South Coast Field Office. October 11, 2005.

BLM. 2011. South Coast Draft Resource Management Plan and Environmental Impact Statement. August 2011.

BLM. 2012. BLM Manual 6310 - Conducting Wilderness Characteristics Inventory on BLM Lands). March 15, 2012.

California Department of Parks and Recreation. 1986. *Cuyamaca Rancho State Park General Plan*. April 1986.

California Department of Parks and Recreation. 2010. “Cuyamaca Rancho State Park” [brochure]. Accessed March 13, 2013. http://www.parks.ca.gov/MediaGallery/?page_id=667&m=brochures.

California Department of Parks and Recreation. 2013a. “Palomar Mountain State Park.” California Department of Parks and Recreation. Accessed June 5, 2013. http://www.parks.ca.gov/?page_id=637.

California Department of Parks and Recreation. 2013b. “Cuyamaca Rancho SP.” California Department of Parks and Recreation. Accessed March 14, 2013. http://www.parks.ca.gov/?page_id=667.

California Department of Parks and Recreation. 2013c. “Cuyamaca Rancho State Park General Plan” Update March 6, 2013. Accessed March 7, 2013. http://www.parks.ca.gov/?page_id=27169.

City of San Diego. 2014. “Barrett Reservoir.” Public Utilities, Water, Reservoirs. Accessed February 25, 2014. <http://www.sandiego.gov/water/recreation/reservoirs/barrett/index.shtml>

- County of San Diego. 2009a. County Trails Program Community Trails Master Plan.
- County of San Diego. 2009b. Pala/Pauma Community Trails and Pathways Plan and Map.
- County of San Diego. 2009c. Descanso Community Trails and Pathways Plan and Map.
- County of San Diego. 2009d. Alpine Community Trails and Pathways Plan and Map.
- County of San Diego. 2009e. Pine Valley Community Trails and Pathways Plan and Map.
- County of San Diego. 2009f. Campo/Lake Morena Community Trails and Pathways Plan and Map.
- County of San Diego. 2009g. Jamul-Dulzura Community Trails and Pathways Plan and Map.
- County of San Diego. 2011a. San Diego County General Plan Conservation and Open Space Element. August 2011.
- County of San Diego. 2011b. San Diego County General Plan Mobility Element. August 2011.
- County of San Diego. 2013a. "Hellhole Canyon Preserve." County of San Diego, Parks and Recreation Department. Accessed March 14, 2013. <http://www.co.san-diego.ca.us/parks/openspace/hellhole.html>.
- County of San Diego. 2013b. "Santa Ysabel Preserves." County of San Diego, Parks and Recreation Department. Accessed March 14, 2013. http://www.co.san-diego.ca.us/parks/openspace/Santa_Ysabel.html.
- County of San Diego. 2013c. "Pine Valley County Park." County of San Diego, Parks and Recreation Department. Accessed March 14, 2013. <http://www.sdcounty.ca.gov/parks/picnics/pinevalley.html>.
- County of San Diego. 2013d. "Lake Morena County Park." County of San Diego, Parks and Recreation Department. Accessed March 18, 2013. http://www.sdcounty.ca.gov/parks/Camping/lake_morena.html.
- County of San Diego. 2013e. "William Heise County Park." County of San Diego, Parks and Recreation Department. <http://www.sdcounty.ca.gov/parks/Camping/heise.html>. Accessed March 14, 2013.
- County of San Diego. 2013f. "Potrero Regional Park." County of San Diego, Parks and Recreation Department. Accessed March 19, 2013. http://www.sdcounty.ca.gov/reusable_components/images/parks/doc/PotreroView3.pdf.

- DMV (California Department of Motor Vehicles). 2014. "Red and Green Stickers." Accessed June 16, 2014. <http://www.dmv.ca.gov/vr/ohvredgreen.htm>.
- Forest Service (U.S. Forest Service). 1982. *Comprehensive Management Plan for the Pacific Crest National Scenic Trail*. January 1982.
- Forest Service. 1985. "The Limits of Acceptable Change (LAC) System in Wilderness Planning." General Technical Report INT-176. Intermountain Forest and Range Experiment Station. Ogden, Utah. January 1985.
- Forest Service. 2005a. *Southern California National Forests Land Management Plan – Part 2 Cleveland National Forest Strategy*. September 2005.
- Forest Service. 2005b. *Southern California National Forests Land Management Plan – Part I Southern California National Forest Vision*. September 2005.
- Forest Service. 2005c. *Southern California National Forests Land Management Plan – Part 3 Design Criteria for the Southern California National Forests*. September 2005.
- Forest Service. 2006. Field Map for the Cleveland National Forest – Trabuco Ranger District and the Palomar and Descanso Ranger Districts. 2006.
- Forest Service. 2007. *Forest Service Strategic Plan FY 2007-2012*. Forest Service Document FS-800. July 2007.
- Forest Service. 2009a. Cleveland National Forest (Palomar and Descanso Ranger Districts) Motor Vehicle Use Map.
- Forest Service. 2009b. "Chapter 2350 Trail, River, and Similar Recreation Opportunities.:" In *Forest Service Manual 2300 –Recreation, Wilderness, and Related Resource Management*. Approved October 6, 2009.
- Forest Service. 2013a. *Cleveland National Forest Visitor Guide*.
- Forest Service. 2013b. Cleveland National Forest, Corral Canyon OHV Trails (Descanso Ranger District). Accessed March 14, 2013. <http://www.fs.usda.gov/recmain/cleveland/recreation>.
- Forest Service. 2013c. *Draft Supplemental Environmental Impact Statement, Southern California National Forest Land Management Plan Amendment*. February 2013.
- Forest Service. 2013d. "Pacific Crest National Scenic Trail." Accessed March 19, 2013. <http://www.fs.usda.gov/pct>.

- Forest Service. 2014a. "Crestline Group Campground." Forest Service, Cleveland National Forest, Recreation. Accessed July 24, 2014. <http://www.fs.usda.gov/activity/cleveland/recreation/camping-cabins/?recid=47396&actid=29>.
- Forest Service. 2014b. "Fry Creek Campground." Forest Service, Cleveland National Forest, Recreation. Accessed July 24, 2014. <http://www.fs.usda.gov/activity/cleveland/recreation/camping-cabins/?recid=47396&actid=29>.
- Forest Service. 2014c. "Observatory Campground." Forest Service, Cleveland National Forest, Recreation. Accessed July 24, 2014. <http://www.fs.usda.gov/activity/cleveland/recreation/camping-cabins/?recid=47396&actid=29>.
- Forest Service. 2014d. "Laguna Campground." Forest Service, Cleveland National Forest, Recreation. Accessed April 7, 2014. <http://www.fs.usda.gov/recarea/cleveland/recreation/camping-cabins/recarea/?recid=47476&actid=29>.
- Forest Service. 2014e. "Wooded Hill Group Campground." Forest Service, Cleveland National Forest, Recreation. Accessed March 7, 2014. <http://www.fs.usda.gov/recarea/cleveland/recreation/camping-cabins/recarea/?recid=47520&actid=33>.
- Forest Service. 2014f. "Wooded Hill Nature Trail." Forest Service, Cleveland National Forest, Recreation. Accessed March 7, 2014. <http://www.fs.usda.gov/recarea/cleveland/recreation/hiking/recarea/?recid=47522&actud=50>.
- Forest Service. 2014g. "Burnt Rancheria Campground." Forest Service, Cleveland National Forest, Recreation. Accessed February 24, 2014. <http://www.fs.usda.gov/recarea/cleveland/recreation/camping-cabins/recarea/?recid=47424&actid=29>.
- Forest Service. 2014h. "Desert View Picnic Site." Forest Service, Cleveland National Forest, Recreation. Accessed April 7, 2014. <http://www.fs.usda.gov/recarea/cleveland/recreation/picnickinginfo/recarea/?recid=47434&actid=70>.
- Fredrickson, Bjorn. 2014. "Federal and State Recreation Areas and Trails." Personal communication between B. Fredrickson (Forest Service) and J. Saunders (Dudek). June 2014.

- Hawkins, Robert. 2014. "Federal and State Recreation Areas and Trails." Personal communication between R. Hawkins (Forest Service) and J. Saunders (Dudek). June 2014.
- Laguna Mountain Volunteer Association. 2014. "Laguna Mountain." Accessed February 24, 2014. http://mtlaguna.org/?page_id=67.
- La Jolla Band of Luiseno Indians. 2013. "La Jolla Indian Campground." Accessed March 14, 2013. <http://lajollaindians.com/index.php/la-jolla-indian-campground>.
- Lake Cuyamaca. 2013. "Lake Cuyamaca Recreation and Park District." Accessed March 14, 2013. <http://www.lakecuyamaca.org/>.
- Lake Henshaw Resort. 2013. "Lake Henshaw Resort." Accessed March 14, 2013. <http://lakehenshawresort.com/index.html>.
- Ma Tar Awa RV Park. 2013. "Ma Tar Awa RV Park." Accessed March 14, 2013. <http://matarawarvpark.com/>.
- National Recreation Trails. 2014. "About the NRT Program." Accessed February 24, 2014. <http://www.americantrails.org/nationalrecreationtrails/about.htm>.
- Oak Knoll Campground. 2014. "Oak Knoll Campground Facilities." Accessed February 24, 2014. <http://www.oakknoll.net/>.
- ProRide. 2013. "Amago Sports Parks." Accessed March 14, 2013. <http://www.proride.com/amago.htm>.
- San Diego Horse Trails. 2013. "Horsethief Canyon." Accessed March 18, 2013. <http://www.sdhorsestails.com/horsethiefcanyon.html>.
- San Diego Natural History Museum. 2014. "Trans-County Trail: Public Property Corridor." Accessed April 7, 2014. <http://www.sdnhm.org/archive/fieldguide/places/index.html>.
- San Diego Reader. 2008. "Three Sisters Falls." Accessed June 16, 2014. <http://www.sandiegoreader.com/news/2008/jan/09/three-sisters-falls/>.
- SANGIS (San Diego Geographic Information Systems). 2010. Data layer General_Plan_Trails_CN. June 10, 2010. <http://www.sangis.org/>.
- SDG&E (San Diego Gas & Electric). 2012. *Proponent's Environmental Assessment for the TL6931 Fire Hardening/Wind Interconnect Project*. December 2012. Accessed

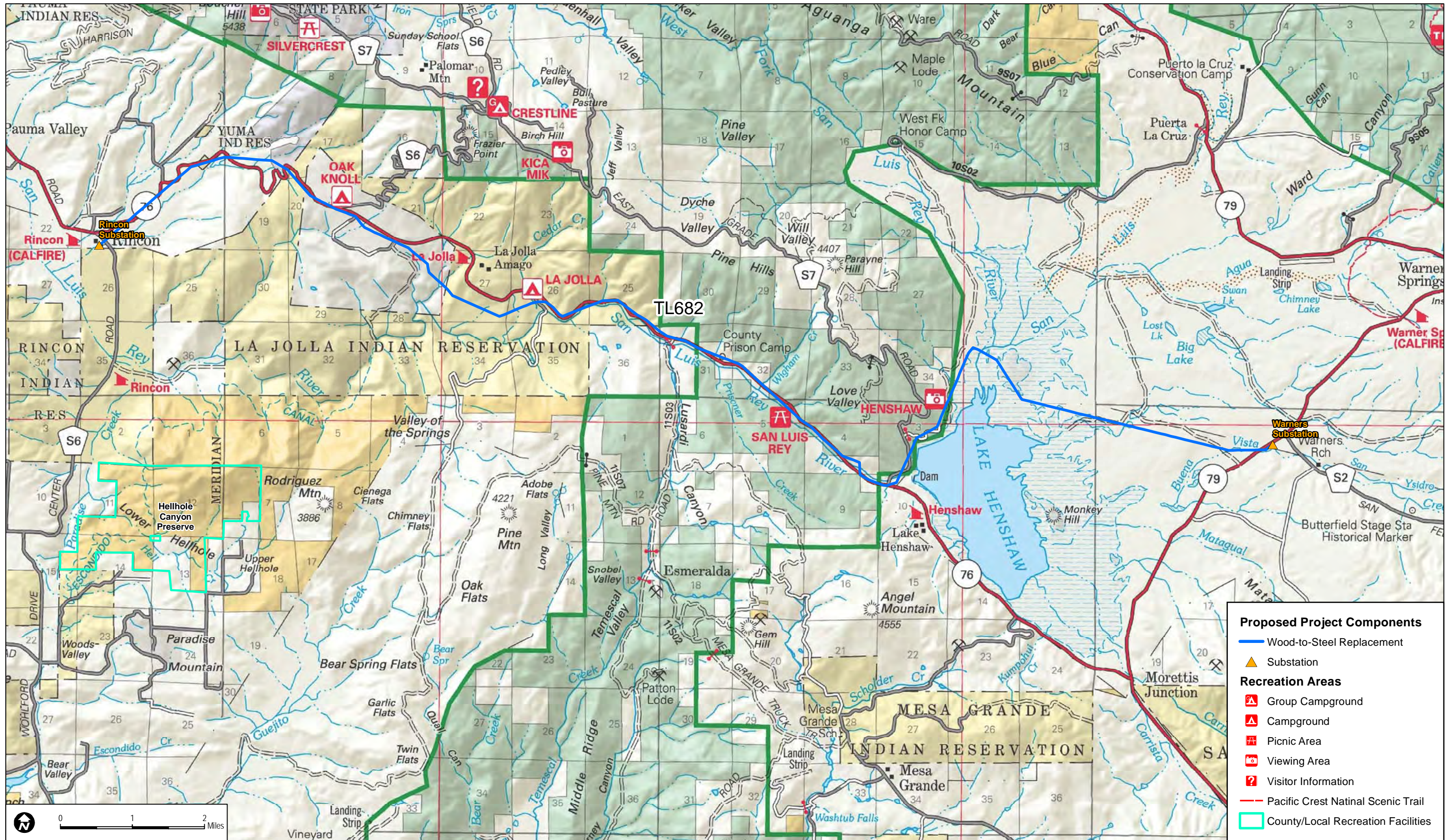
April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.

SDG&E 2013. *SDG&E Revised Plan of Development, San Diego Gas & Electric Company, Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California*. April 2013. Accessed March 2014. Prepared by Insignia Environmental. [http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20\(04-19-13S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20(04-19-13S).pdf).

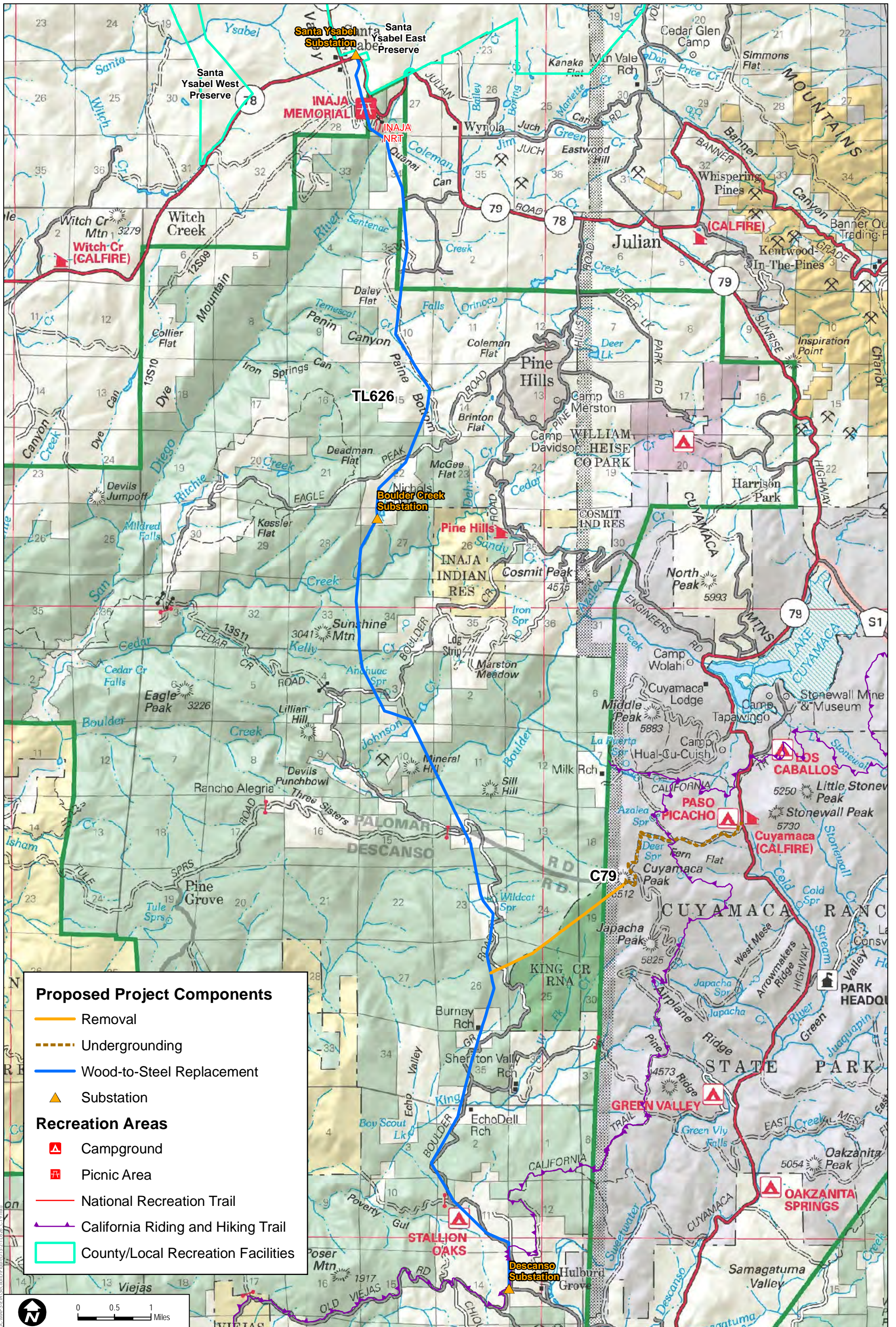
Sweetwater Authority. 2013. "Loveland Reservoir." Accessed March 18, 2013. <http://www.sweetwater.org/index.aspx?page=111>.

Wildernet. 2013. "San Luis Rey Picnic Area." Accessed April 10, 2013. http://activities.wildernet.com/pages/activity.cfm?actid=050202IO*53465p.

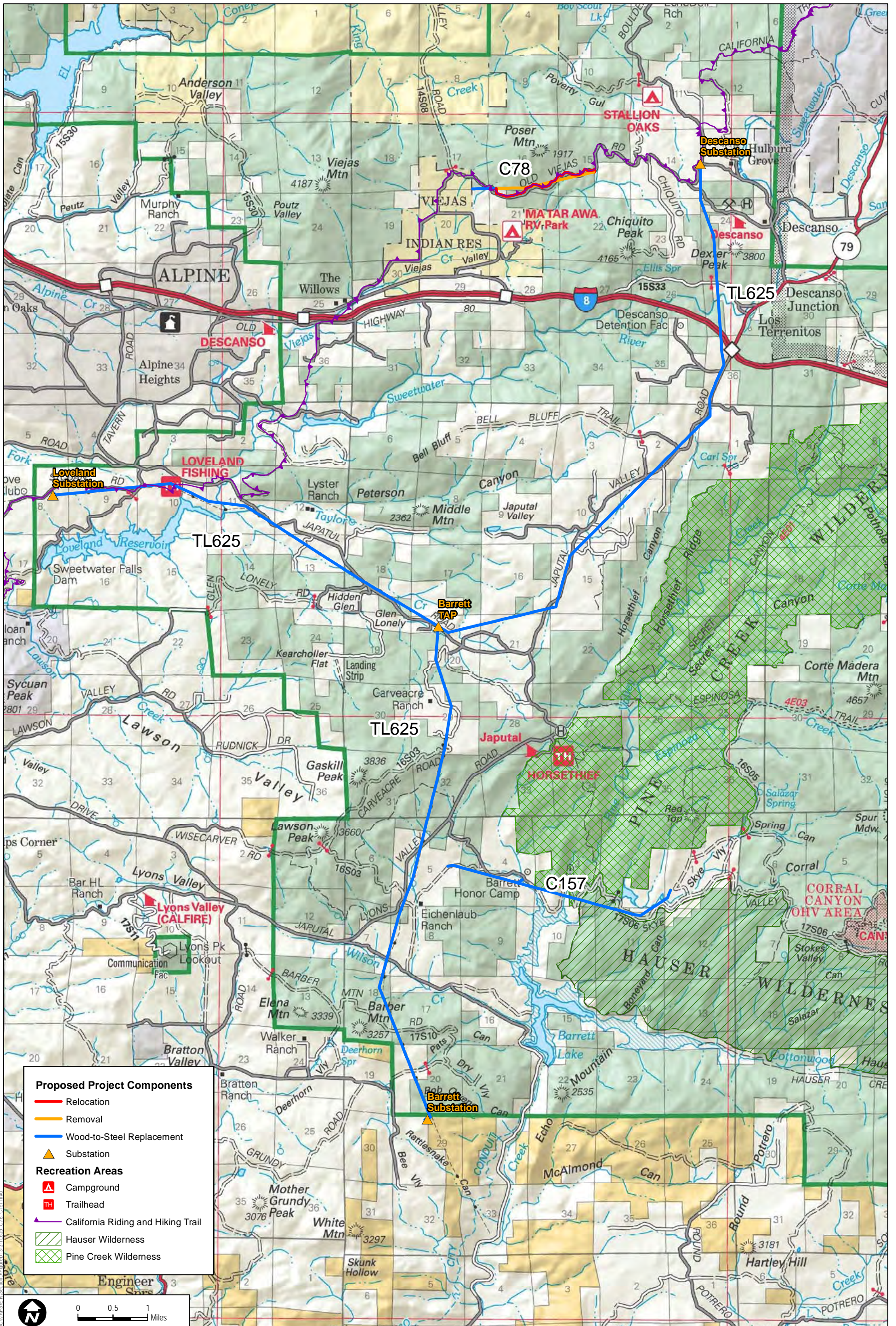
INTENTIONALLY LEFT BLANK



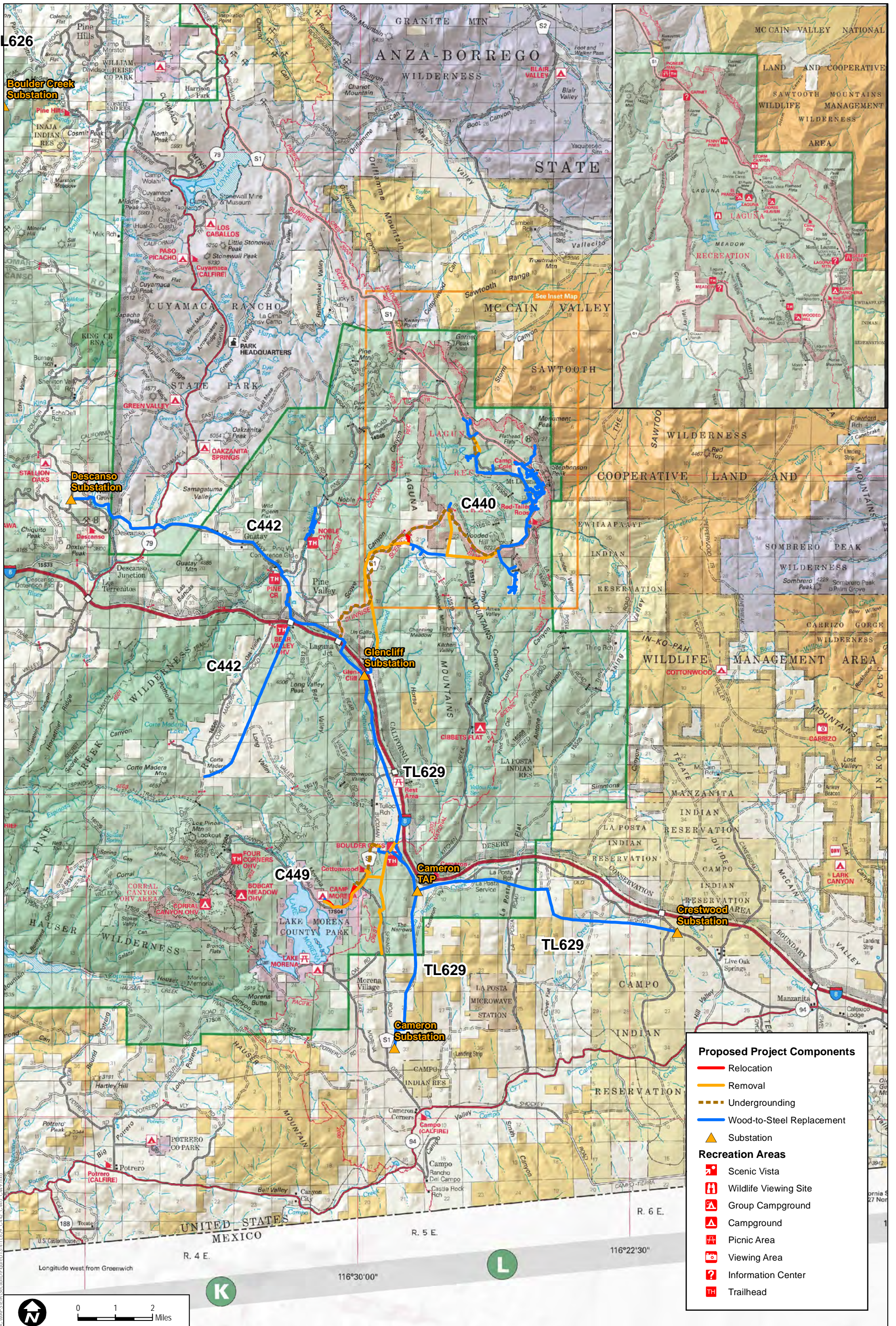
INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK

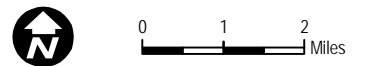


Proposed Project Components

- Relocation
- Removal
- Undergrounding
- Wood-to-Steel Replacement
- ▲ Substation

Recreation Areas

- ▲ Scenic Vista
- ▲ Wildlife Viewing Site
- ▲ Group Campground
- ▲ Campground
- ▲ Picnic Area
- ▲ Viewing Area
- ▲ Information Center
- ▲ Trailhead



DUDEK

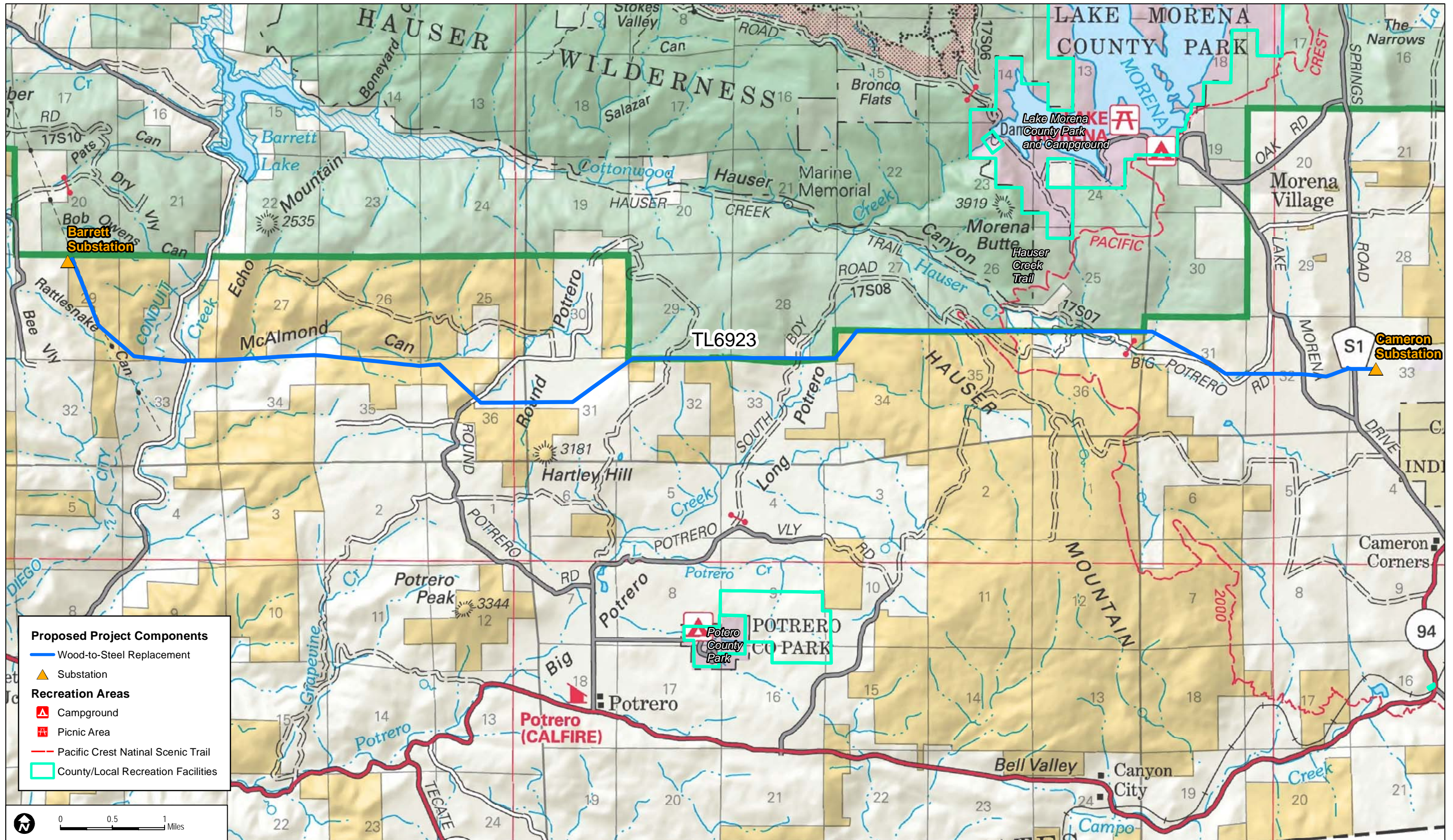
SOURCE: SDG&E 2011; USGS; SanGIS 2009; USFS 2006; Bing Maps

FIGURE D.13-4
TL 629, C442, C440, C449 - Recreation Areas and Facilities

MASTER SPECIAL USE PERMIT AND PERMIT TO CONSTRUCT POWER LINE REPLACEMENT PROJECTS

Path: Z:\projects\01401\MapDocs\MAPS\EIS\SectionD\Figures\FigD13-4\FigD13-4_C449_C440_C442.mxd

INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK

D.14 Transportation and Traffic

This section addresses potential transportation and traffic impacts resulting from construction and operation of the proposed power line replacement projects along with the operation and maintenance activities proposed for authorization under the MSUP. Section D.14.1 provides a description of the existing environmental setting/affected environment, and the applicable regulatory framework related to transportation and traffic is introduced in Section D.14.2. An analysis of impacts/environmental effects of SDG&E's proposed project and discussion of mitigation are provided in Section D.14.3. The U.S. Forest Service (Forest Service) proposed action is described in Section D.14.4, and Section D.14.5 describes the Bureau of Indian Affairs (BIA) proposed action. Additional alternatives are discussed in Section D.14.6. Section D.14.7 discusses the No Action Alternative and Section D.14.8 describes the No Project Alternative. Section D.14.9 provides mitigation monitoring, compliance, and reporting information. Section D.14.10 addresses residual effects of the project, and Section D.14.11 lists the references cited in this section.

Aside from impacts to transportation and traffic (circulation, patterns, congestion, and traffic hazards) analyzed in this section, a number of additional transportation/access use-related topics are addressed elsewhere in this EIR/EIS. Erosion and water quality resource issues associated with SDG&E's exclusive use access roads to the project are described in Section D.9, Hydrology and Water Quality, and unauthorized access issues are addressed in Section D.13, Recreation. Potential hazards to aircraft traffic from SDG&E's proposed project are addressed in Section D.7, Public Health and Safety.

D.14.1 Environmental Setting/Affected Environment

The environmental setting includes the roadways, railways, and transit system (bus and bicycle) facilities that would be directly or indirectly affected by construction and operation of SDG&E's proposed project. The environmental setting for airports is provided in Section D.7, Public Health and Safety, of this EIR/EIS.

Methodology and Assumptions

Data for the transportation network were collected and analyzed from the following sources: highway maps; route alignment maps; and other maps from various reports and websites of the affected federal, state, and local agencies. Data regarding SDG&E's exclusive use access roads and traffic volume data were obtained from SDG&E's Plan of Development (SDG&E 2013a). Lane information was obtained from aerial photographs, local government agencies, public maps, and field reconnaissance.

Roadways have different classifications depending on their purpose and level of traffic:

- *Highway*: A main public road, especially one connecting towns and cities
- *Freeway*: A divided arterial highway with full control of access and with grade separation at intersections

- *State Route*: A roadway designated by state law as part of the Freeway and Expressway System of the California State Highway Code
- *Prime Arterial*: A main highway primarily for through traffic usually on a continuous route
- *Major Collector*: A four-lane facility, with a design speed of 25–35 miles per hour (mph) on a typical right-of-way (ROW) of 84 feet without bicycle lanes, or 96 feet with two 6-footwide bicycle lanes
- *Collector*: Streets that collect and distribute traffic to and from major highways and local streets. Collector streets also serve secondary traffic generators such as shopping and business centers, schools, parks, and high density or large-scale residential areas.

Typically, large cities, counties, and the California Department of Transportation (Caltrans) will collect traffic data on these larger roadways. Local and minor roads frequently have no data available because the level of traffic does not warrant data collection.

D.14.1.1 General Overview

As shown in Figures B-1 through B-7, the MSUP study area, including all of the proposed power line replacement projects, are located in close proximity to regional and local transportation facilities, including State Route 74 (SR-74) in southwestern Orange County, Interstate 8 (I-8) near Descanso, and several locations along SR-76, SR-78, and SR-79 in southeastern San Diego County. Local roads are not shown on the figures due to scale.

Roadway Network

Roads in the project area are maintained by several different government agencies. Freeways and highways are maintained by Caltrans. The majority of the local public rural roads are maintained by the County of San Diego. Some local roads are maintained by the local jurisdiction (County of San Diego 2014). A list of the existing roadways that will be used for access during construction and those that are spanned by the power line replacement projects, as well as number of lanes and levels of service (LOS) (for roadways that have this data) is provided in Tables D.14-1 and D.14-2 below. Major public roadways are shown in Figures B-1 through B-7; several local roads are not shown on these figures due to scale. In addition to the roadways listed in the tables, there are numerous unpaved and/or unimproved roads that would also be affected by SDG&E's proposed project; these are typically either Forest Service roads or roads that SDG&E and other utility companies use to access their ROWs (see discussion below on Forest Service Roads).

I-8, SR-76, SR-78, and SR-79 are the main regional roadways within the MSUP area. I-8 is the main east–west freeway in Imperial and San Diego counties. Within San Diego County, I-8 is a four-lane divided highway with a posted speed limit of 70 mph. SR-76 is a paved two-lane highway

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.14 TRANSPORTATION AND TRAFFIC

in north-central San Diego County providing access to Lake Henshaw. SR-78 is a paved two- to four-lane divided highway extending from Oceanside in San Diego County, continuing through Brawley in Imperial County, and terminating at the junction of I-10 at Blythe in Riverside County. SR-79 is a paved north-south two-lane highway traversing central San Diego County.

Table D.14-1
Public Access Roadways

Roadway	Classification	Number of Lanes	LOS
I-8	Expressway/Freeway	4 to 6	A-C
Old Highway 80	Arterial Rural	2	A-D
SR-94	Community Collector	2	A-C
SR-76	Minor Arterial	2	B
SR-78	Collector Urban	2	A-C
SR-79	Rural Minor Arterial	2	B
Barrett Lake Road	Collector Rural	2	A-C
Bell Bluff Truck Trail	Minor Rural	2	—
Big Potrero Truck Trail	Other Roadway ¹	1	—
Boulder Creek Road	Collector Rural	2	A-C
Buckman Springs Road	Collector Rural	2	A-C
Camino Tres Aves	Other Roadway	1	—
Cameron Truck Trail	Other Roadway	1	A-C
Campbell Ranch Road	Permanent Road Division(PRD)/ Municipal/ Private Road ²	2	—
Carveacre Road	Minor Rural	2	—
Chris Lane	Other Roadway	1	—
Church Road	Other Roadway	1	—
Cinnamon Drive	Other Roadway	1	—
Calle El Potrero	Other Roadway	2	—
Corral Canyon Trail	Other Roadway	2	—
Corte Madera Road	Minor Rural	2	A-C
Deodar Trail	Minor Rural	2	—
Eagle Pass	Other Roadway	1	—
East Grade Road	Collector Rural	2	—
Guatay View Lane	Minor Rural	2	—
Hamilton Lane	Minor Urban	2	—
Hauser Creek Road	Other Roadway	1	—
Henshaw Road	Other Roadway	1	—
Hidden Glen Drive	Other Roadway	2	—
Hoskings Ranch Road	Other Roadway	1	—
Hulburd Grove Drive	Minor Rural	2	—
Illahee Drive	Other Roadway	1	—
Japatul Road	Collector Rural	2	A-C
Japatul Valley Road	Collector Rural	2	A-C
Kitchen Creek Road	Arterial Rural	2	A-C

**Table D.14-1
Public Access Roadways**

Roadway	Classification	Number of Lanes	LOS
La Jolla Truck Trail	Other Roadway	2	—
La Posta Circle	Other Roadway	1	—
La Posta Road	Collector Rural	2	A-C
La Posta Truck Trail	Other Roadway	1	—
Lake Morena Drive	Collector Rural	2	A-C
Larry Lane	Other Roadway	1	—
Lebanon Road	Minor Rural	2	—
Los Huecos Road	Minor Rural	2	—
Lyons Valley Road	Collector Rural	2	A-C
Maggio Drive	Other Roadway	1	—
Manzanita Lane	Minor Rural	2	—
Meadow Lane	Other Roadway	2	—
Merrigan Fire Road	Other Roadway	1	—
Miller Valley Road	Minor Rural	2	—
Mizpah Lane	PRD/Municipal/Private Road	1	—
Morris Ranch Road	PRD/Municipal/Private Road	1	—
Nature's Way	Other Roadway	1	—
Oak Drive	Collector Rural	2	A-C
Oak Grove Drive	Minor Rural	2	—
Old Buckman Springs Road	Minor Rural	2	—
Pine Creek Road	Minor Rural	2	A-C
Pine Valley Road	Minor Rural	2	A-C
Poomacha Road	Other Roadway	1	—
Red Hawk Ridge	Other Roadway	1	—
River Drive	Arterial Rural	2	—
Round Potrero Road	Collector Rural	2	—
Sengme Oaks Road	Other Roadway	1	—
Sequan Truck Trail	Collector Rural	2	—
Skye Valley Road	PRD/Municipal/Private Road	1	—
Spargur Road	Other Roadway	1	—
Spice Way	Other Roadway	1	—
Stagecoach Springs Road	Other Roadway	1	—
Sundance View Lane	Other Roadway	1	—
Sunrise Highway	Collector Rural	2	A-C
Tecate Cypress Trail	Other Roadway	1	—
Tribal Store Road	Other Roadway	1	—
Thyme Way	Other Roadway	1	—
Valley Center Road	Collector Urban	2	—
Via Arturo Road	Other Roadway	1	—
Viejas Boulevard	Other Roadway	2	—

Table D.14-1
Public Access Roadways

Roadway	Classification	Number of Lanes	LOS
Viejas Grade Road	Collector Rural	2	A-C
Wildwood Glen Lane	Minor Urban	2	—

Source: SDG&E 2013a.

Notes:

- ¹ Other Roadway refers to roads that are not maintained by San Diego County, Caltrans, or private parties. As a result, no official classification or LOS information is available for these roads.
- ² PRD/Municipal/Private Roads are county, municipal, and private roads that are not maintained by San Diego County. As a result, no official classification or LOS information is available for these roads.

Table D.14-2
Public Roadways Spanned by Existing and Proposed Project Alignments

69 kV Power Line	Roadway	Number of Times Spanned			Classification	Number of Lanes	LOS
		Within CNF	Outside CNF	Total			
TL625	Bell Bluff Truck Trail	0	1	1	Minor Rural	2	—
	Campbell Ranch Road	0	1	1	PRD/Municipal/ Private Road	2	—
	Carveacre Road	0	3	3	Minor Rural	2	—
	Cinnamon Drive	1	0	1	Other Roadway	1	—
	Eagle Pass	0	1	1	Other Roadway	1	—
	Hidden Glen Drive	1	0	1	Other Roadway	2	—
	I-8	1	0	1	Expressway/Freeway	4 to 6	A-C
	Illahee Drive	0	1	1	Other Roadway	1	—
	Japatul Road	1	3	4	Collector Rural	2	A-C
	Japatul Valley Road	0	6	6	Collector Rural	2	A-C
	Larry Lane	0	1	1	Other Roadway	1	—
	Lyons Valley Road	1	0	1	Collector Rural	2	A-C
	Red Hawk Ridge	0	1	1	Other Roadway	1	—
	Sequan Truck Trail	0	2	2	Collector Rural	2	—
	Spice Way	1	0	1	Other Roadway	1	—
	Thyme Way	1	0	1	Other Roadway	1	—
	Viejas Grade Road	0	1	1	Collector Rural	2	A-C
Wildwood Glen Lane	1	0	1	Minor Urban	2	—	
TL626	Boulder Creek Road	9	5	14	Collector Rural	2	A-C
	Daley Flat Road	0	1	1	Other Roadway	2	—
	Eagle Peak Road	1	0	1	Collector Rural	2	—
	Hoskings Ranch Road	0	1	1	Other Roadway	1	—
	Oak Grove Drive	0	1	1	Minor Rural	2	—
	SR-78	0	1	1	Collector Urban	2	A-C
	Sundance View Lane	0	1	1	Other Roadway	1	—

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.14 TRANSPORTATION AND TRAFFIC**

**Table D.14-2
Public Roadways Spanned by Existing and Proposed Project Alignments**

69 kV Power Line	Roadway	Number of Times Spanned			Classification	Number of Lanes	LOS
		Within CNF	Outside CNF	Total			
TL629	Boulder Creek Road	0	1	1	Collector Rural	2	A-C
	Buckman Springs Road	0	2	2	Collector Rural	2	A-C
	Camino Tres Aves	0	1	1	Other Roadway	1	—
	Cameron Truck Trail	2	2	4	Other Roadway	1	A-C
	Chris Lane	0	1	1	Other Roadway	1	—
	Church Road	0	1	1	Other Roadway	2	—
	Corte Madera Road	0	1	1	Minor Rural	2	A-C
	Deodar Trail	0	1	1	Minor Rural	2	—
	Guatay View Lane	0	1	1	Minor Rural	2	—
	Hamilton Lane	0	1	1	Minor Urban	2	—
TL6923	Barrett Lake Road	0	1	1	Collector Rural	2	A-C
	Big Potrero Truck Trail	1	1	2	Other Roadway	1	—
	Lake Morena Drive	0	1	1	Collector Rural	2	A-C
	Round Potrero Road	0	1	1	Collector Rural	2	—
C78	Red Oak Road	0	1	1	Other Roadway	2	—
	Via Arturo Road	3	0	3	Other Roadway	1	—
	Viejas Grade Road	3	1	4	Collector Rural	2	A-C
C79	Boulder Creek Road	1	0	1	Collector Rural	2	A-C
C157	Skye Valley Road	0	3	4	PRD/Municipal/Private Road	1	—
C440	Boiling Springs Road	4	0	4	Other Roadway	2	—
	El Centro Trail	8	0	8	Other Roadway	1	—
	El Centro Tract	1	0	1	Other Roadway	1	—
	Escondido Ravine Road	1	0	1	Other Roadway	1	—
	I-8	1	0	1	Expressway/Freeway	4 to 6	A-C
	Kitchen Creek Road	1	0	1	Arterial Rural	2	A-C
	Los Huecos Road	4	0	4	Minor Rural	2	—
	Morris Ranch Lane	0	7	7	Other Roadway	1	—
	Morris Ranch Road	1	0	1	PRD/Municipal/ Private Road	1	—
	Mount Laguna Drive	0	8	8	Minor Rural	2	—
C440	Piedra Tract	1	0	1	Other Roadway	1	—
	Old Highway 80	1	0	1	Arterial Rural	2	A-D
	Sunrise Highway	10	1	11	Collector Rural	2	A-C
C442	Pine Creek Road	11	0	11	Minor Rural	2	A-C
C449	Buckman Springs Road	3	0	3	Collector Rural	2	A-C
	Corral Canyon Trail	1	0	1	Other Roadway	2	—
	Oak Drive	2	0	2	Collector Rural	2	A-C
	Old Highway 80	1	0	1	Arterial Rural	2	A-D

Source: SDG&E 2013a

Forest Service Roads

SDG&E’s proposed project would coincide with or cross numerous Forest Service roads, which are typically unpaved, and used for a wide range of activities, including operation and maintenance of CNF facilities and for the purposes of public recreation, such as off-highway vehicle use, and dispersed recreation (e.g., scenic opportunities, hiking, biking, camping. Operations and maintenance activities on Forest Service roads also includes activities supporting operating and maintaining numerous gas and electrical utility systems, water systems, and sewer systems, including maintaining the access roads to these utility systems.

As the population of neighboring communities increases, daily use of the CNF roads continues to increase. Many of the Forest Service roads within the CNF are in hazardous condition due to increased urban use, storm runoff damage, crossing needs at creeks, and insufficient funds to maintain them. To minimize risk, many CNF roads have been closed. However, as demand for road use increases, use is concentrated on the remaining network. There are hundreds of miles of undesignated roads within the CNF that require some form of active management (Forest Service 2005). The following table indicates the uses considered suitable based on the applicable CNF land use zone. Though several activities are described in the table as being permitted in designated areas only, all motorized uses are restricted to designated roads, trails and limited open areas and may be restricted or expanded further in order to achieve the desired condition for the land use zones. Vehicular traffic traveling cross-country or on non-designated routes is not allowed in any zone (Forest Service 2005). A map of the CNF LMP land use zones is available in Appendix C of the LMP.

**Table D.14-3
Forest Service Policies Regarding Public Motorized and
Non-Motorized Use of Public Lands**

Land Use Zone:		DAI	BC	BCMUR	BCNM	CB	W
<i>Activity or Use</i>		<i>Developed Areas Interface</i>	<i>Back Country</i>	<i>Back Country Motorized Use Restricted</i>	<i>Back Country Non-motorized</i>	<i>Critical Biological</i>	<i>Wilderness</i>
Project Segments Crossing Land Use	TL682	X	X		X	X	
	TL625	X	X	X			
	TL626	X	X	X	X		
	TL629	X	X	X			
	TL6923			X			
	C78	X	X				
	C79		X		X	X	
	C157		X	X			X
	C440	X	X	X			

**Table D.14-3
Forest Service Policies Regarding Public Motorized and
Non-Motorized Use of Public Lands**

Land Use Zone:	DAI	BC	BCMUR	BCNM	CB	W
<i>Activity or Use</i>	<i>Developed Areas Interface</i>	<i>Back Country</i>	<i>Back Country Motorized Use Restricted</i>	<i>Back Country Non-motorized</i>	<i>Critical Biological</i>	<i>Wilderness</i>
C442	X			X		
C449	X	X	X	X		
Public Motorized Use on Forest System Roads	Suitable	Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Authorized Motorized Use	Suitable	Suitable	Suitable	*By Exception	*By Exception	*By Exception
Off-Highway Vehicle Use on Forest System Roads and Trails	Designated Roads and Trails	Designated Roads and Trails	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Public Motorized Use off Forest System Roads and Trails	Suitable in Designated Open Areas	Suitable in Designated Open Areas	Not Suitable	Not Suitable	Not Suitable	Not Suitable
Mountain Bikes Forest System Roads and Trails	Unless Otherwise Restricted	Unless Otherwise Restricted	Unless Otherwise Restricted	Unless Otherwise Restricted	Unless Otherwise Restricted	Not Suitable

Source: Forest Service 2005

* By Exception = Conditions which are not generally compatible with the land use zone but may be appropriate under certain circumstances.

SDG&E Exclusive Use Roads

For decades SDG&E has regularly maintained a network of approximately 30 miles of existing access roads, spur roads, and turnarounds within the CNF to support and provide access to its existing 69-kilovolt (kV) power lines, as well as approximately 15.6 miles of access roads to support existing 12 kV distribution lines within the CNF. SDG&E also regularly maintains a network of approximately 0.9 mile of existing access roads, spur roads, and turnarounds to support and provide access to the existing 69 kV power lines extending outside of Forest Service-administered lands, as well as a network of approximately 0.7 mile of existing access roads, spur roads, and turnarounds to support and provide access to the existing 12 kV distribution lines extending outside of Forest Service-administered lands. The access roads provide connectivity between established local and regional roadways and electric line ROW areas. Spur roads provide access to pole locations and other equipment where facilities are located away from access road locations. Turnarounds are extended vehicle use areas that provide maneuverable space for work vehicles. These roads and turnarounds may contain paved, gravel, or unpaved earth surfaces (SDG&E 2013a).

Railway

SDG&E's proposed project does not intersect with any railway lines. The nearest rail station is the North County Transit District Sprinter Station in Escondido, approximately 15 miles west of SDG&E's proposed project (SanGIS 2013).

Bus Facilities

San Diego Metropolitan Transit System provides limited bus service within SDG&E's proposed project area. Bus Routes 888 and 894 are spanned by existing 69 kV power lines along TL629 at points along Old Highway 80, I-8, and Buckman Springs Road in Descanso, Pine Valley, and Boulder Oaks. In addition, Bus Routes 891 and 892 provide limited service along SR-76 and SR-78, and thus along TL 682 and past the Warners Substation (SDMTS 2014).

Bicycle Facilities

According to the San Diego Association of Governments (SANDAG), there is limited designated bicycle infrastructure in the area of SDG&E's proposed project. A portion of Old Highway 80 in Pine Valley that follows the alignment of TL629 includes a striped lane for one-way bike travel. No other designated bicycle facilities exist in the vicinity of SDG&E's proposed project. However, SANDAG includes SR-76, SR-79, and SR-94 as other suggested routes where cyclists should use caution in choosing routes that are appropriate for their skill level and equipment (SANDAG 2014).

D.14.1.2 Environmental Setting for the Proposed Power Line Replacement Projects

Each of the power line replacement project segments are described individually below.

TL682

From the western terminus of TL682 at Rincon Substation to the western side of Lake Henshaw, TL682 generally follows a similar route as SR-76. The alignment of TL682 is not coincident with SR-76, but spans it at 15 locations. From the western side of Lake Henshaw to the eastern terminus of the alignment at Warners Substation, TL682 crosses undeveloped rural land. Other rural roadways spanned by the line are shown in Table D.14-2.

TL626

TL626 between Santa Ysabel Substation and Descanso Substation, except for its northern and southern ends, would primarily cross undeveloped open space in a relatively rural and road-less

portion of the County. The northern tip of the alignment would cross SR-78; otherwise the line would cross rural roads and unpaved Forest Service roads and ROW access roads. Rural roadways spanned by the line are shown in Table D.14-2.

TL625

TL625 alignment consists of three branches connecting the Loveland, Descanso, and Barrett substations to the Barrett Tap. The major public roadway that would be crossed by TL625 would be I-8, which crosses the northern portion of the alignment. Temporary work sites are not located within I-8 itself but may possibly be located within its ROW. Other major roadways crossed by TL625 include Japatul Road, Japatul Valley Road, Lyons Valley Road, and Viejas Grade Road. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2.

TL629

TL629 also consists of three branches connecting the Descanso Substation to the west, the Crestwood Substation to the east, and the Cameron Substation to the south to the Cameron TAP near Old Highway 80. Compared to the other power line segments, TL629 crosses more developed areas and rural communities, as a large portion of the line follows the general route of I-8. Major regional roadways crossed by the line include SR-79, I-8, Old Highway 80, Buckman Springs Road, La Posta Road, and Pine Valley Road. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2.

TL6923

TL6923 is the southern-most power line replacement project, and connects the Cameron Substation to the Barrett Substation. The power line segment crosses a relatively undeveloped rural landscape where most roadway consist of unimproved dirt roads used to access the transmission ROW. The main roadways crossed by the alignment include Barrett Lake Road and Lake Morena Drive. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2.

C79

The western end of C79 begins along the central portion of TL626 and extends in a northeastern direction toward SR-79. The power line traverses a remote part of the County, crossing Boulder Creek Road at its western end, and several unnamed forest roads. The proposed realignment and undergrounding of the distribution line would occur from the east, starting at SR-79, following Lookout Road, which is a fire access road.

C78

The only public roads crossed by distribution line C78 are Viejas Grade Road, Via Arturo, and Red Oak Road; otherwise, the line crosses or parallels unpaved roads used for the purposes of maintaining the line. The proposed relocation of the line would be along and coincident with Viejas Grade Road.

C157

C157 follows the general route of Skye Valley Road, crossing it four times along the alignment. The distribution line also crosses several forest service roads, including one identified as NF-17504.

C442

C442 is made up of two non-contiguous sections of distribution line, one located south of I-8 in an undeveloped rural area, and one located north of I-8 generally following a similar route as Pine Creek Road. The northern segment crosses Pine Creek Road 11 times.

C440

This distribution line generally follows San Diego County S-1 (Sunrise Highway), but includes numerous spurs and tees that serve developed communities areas near Mount Laguna. Major roadways that would be crossed by this distribution segment include Old Highway 80, I-8, and the Sunrise Highway. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2.

C449

This distribution line connects the Boulder Oaks area to the Morena Reservoir and Buckman Springs Road. Major Roadways that would be crossed by this distribution segment include Old Highway 80, Buckman Springs Road, and Morena Stokes Valley Road. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2.

D.14.2 Applicable Regulations, Plans, and Standards

D.14.2.1 Federal Regulations

Cleveland National Forest Land Management Plan

The vision for the Cleveland National Forest (CNF), in terms of the road and trail system, is to provide transportation systems that are safe, affordable, and environmentally sound; respond to public needs; and are efficient to manage. The CNF seeks to provide public access for recreation, special uses, and fire protection activities, and support for forest-management objectives.

The CNF has established the following policies in its Land Management Plan (LMP) with respect to transportation:

Trans 1 – Transportation System:

Plan, design, construct, and maintain the road and trail system to meet those objectives established to implement the forest plan, to promote sustainable resource conditions, and to safely accommodate anticipated levels and types of use:

- Implement landscape scale transportation system analysis on a priority basis. Coordinate with state, county, local and regional government entities, municipalities, tribal governments, other agencies, and the public.
- Add unclassified roads and trails to the Forest Service transportation system when site-specific analysis determines there is a public need.
- Enhance user safety and offer adequate parking at popular destinations on high traffic passenger car roads, while also minimizing adverse resource effects.
- Using the priorities identified in the Roads Analysis Process (prepared October 10, 2003, and posted to the Reading Room May 2004) reduce the road maintenance backlog to provide safe, efficient routes for recreation traffic and the through-traveling public, and to safely accommodate fire protection equipment or other high clearance vehicles.

Trans 2 – Unnecessary Roads:

Reduce the number of unnecessary or redundant unclassified roads and trails and restore landscapes.

- Decommission roads and trails that have been determined to be unnecessary for conversion to either the road or trail system through site-specific analysis.
- Establish the level of restoration through project planning.

Trans 3 – Improve Trails

Develop an interconnected, shared-use trail network where compatible and support facilities complement local, regional, and national trails and open space, and also enhance day-use opportunities and access for the general public.

- Construct and maintain the trail network to levels commensurate with area objectives, sustainable resource conditions, user safety, and the type and level of use. Convert ecologically sustainable unclassified roads and trails, and other roads that meet the need for trail-based recreation.

- Manage the Pacific Crest National Scenic Trail to protect the trail experience, and to provide for the conservation and enjoyment of its nationally important scenic, historic, natural, and cultural qualities.
- Maintain and/or develop access points and connecting trails linked to the surrounding communities and to create opportunities for non-motorized trips of short duration.
- New trail construction projects will emphasize development of partnerships and cooperative agreements (such as the Adopt-a-Trail program) for construction, future maintenance, and reconstruction.

Trans 4 – Off-Highway Vehicle Opportunities

Provide off-highway vehicle opportunities on designated routes within the Wildomar and Coral Canyon off-highway vehicle areas, and on existing designated routes.

- Provide 4-Wheel Drive opportunities in the easy, more, and most difficult route categories.
- Consider providing opportunities for non-highway licensed vehicles on low maintenance standard roads when Traffic Studies have been completed and potential for user conflict is minimal.
- Consider developing remote driving networks as opportunities to accommodate this experience are identified.

D.14.2.2 State Laws and Regulations

California Public Utilities Commission

General Order 26-D regulates the minimum clearance requirements for railroads and street railroads. As stated in Section 14, “all electrical construction over, above, adjacent to, along or across railroads shall conform to the requirements specified in General Order 95” (CPUC 1948).

General Order 95, Rules for Overhead Electric Line Construction, establishes uniform requirements for overhead electrical line construction. According to General Order 95, Rule 36 (Section III, Table 1), the minimum allowable vertical clearance for supply cables, 22.5 kV–300 kV, for crossings above railroad tracks that transport freight cars is 34 feet (CPUC 2012). The minimum side clearance between an electrical transmission line pole, tower, or structure and the center line of the adjacent railroad track is 8 feet, 6 inches (CPUC 2012). In addition, Section XI states that poles or towers supporting crossing spans shall be located outside of the railroad companies ROW wherever practical (CPUC 2012). For urban and rural thoroughfares, the minimum allowable vertical clearance for supply cables, 22.5 kV–300 kV, is 30 feet (CPUC 2012).

Caltrans

SDG&E's proposed project would be located within Caltrans District 11. Caltrans requires that an encroachment permit be obtained prior to the initiation of any non-transportation activities (including utility construction) occurring within the ROW of the state highway system. Encroachment permits are obtained from the local Caltrans office (District 11). According to the Caltrans Encroachment Permit Application Guide, utility construction projects are not required to submit or prepare a Traffic Control and Detour Plan. However, traditional construction projects are required to prepare a Traffic Control and Detour Plan. Caltrans "Guidelines for Traffic Control Plans" are located in Section 2-205 of the Caltrans *Construction Manual* (Caltrans 2009, p. 2-2.3). The Caltrans *Construction Manual* also contains provisions for nighttime construction work within the state highway system ROW.

Caltrans also requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code (1983). Due to the possibility of heavy truck loads, SDG&E's proposed project would need to obtain transportation permits.

San Diego Association of Governments

Congestion Management Program

SANDAG is the designated congestion management agency for the San Diego region and is responsible for preparing the Regional Transportation Plan (RTP), of which the Congestion Management Plan (CMP) is an element used to monitor transportation system performance, develop programs to address near- and long-term congestion, and better integrate land use and transportation planning decisions. The CMP includes a requirement for enhanced CEQA review applicable to certain large developments that generate an equivalent of 2,400 average daily vehicle trips or 200 or more Peak Hour vehicle trips. These larger projects must complete a traffic analysis that identifies the project's impacts on CMP system roadways, their associated costs, and appropriate mitigation. Early project coordination with affected public agencies, the San Diego Metropolitan Transit System, and the North County Transit District, is required to ensure that the impacts of new development on CMP transit performance measures are identified.

D.14.2.3 Regional Policies, Plans, and Regulations

Pursuant to Article XII, Section 8, of the California Constitution, the CPUC has exclusive jurisdiction, in relation to local government, to regulate the design, siting, installation, operation, maintenance, and repair of electric facilities. SDG&E's proposed project is therefore not subject to local discretionary regulations. However, it is CPUC policy to consult with local agencies

regarding its proposed actions, particularly if such actions would be in conflict with local policies. Therefore for disclosure purposes, this section lists the local plans and policies that address transportation- and traffic-related concerns.

San Diego County

Department of Public Works

San Diego County requires an encroachment permit for the placement of any structures on, over, or under county roads. Several roadways owned and maintained by the County would potentially be affected by project construction. Encroachment permits are issued by the Department of Public Works for the installation of any tower, pole, or structure of any kind within, over, or under a County road ROW.

In addition to encroachment permits, the County Department of Public Works would also require SDG&E's proposed project to obtain construction and traffic control permits. A construction permit is required prior to initiation of any work within the County ROW, and a traffic control permit is typically required in concurrence with an encroachment and/or construction permit to ensure the safe travel of vehicles within a construction work zone.

County of San Diego General Plan Mobility Element

The County of San Diego's existing General Plan Mobility Element establishes goals and policies that address the safe and efficient operation, maintenance, and management of the transportation network. The Mobility Element provides a framework for a balanced transportation system that uses multiple modes of travel, including motor vehicles, public transportation, bicycles, pedestrians, and to a lesser extent, rail and air transportation. One of the goals of the Public Facility Element is to provide "[a] road network that provides adequate capacity to reasonably accommodate both planned land uses and regional traffic patterns, while supporting other General Plan goals such as providing environmental protections and enhancing community character" (County of San Diego 2009).

D.14.3 Environmental Effects

D.14.3.1 Definition and Use of CEQA Significance Criteria/Indicators under NEPA

The CEQA criteria and guidelines described below are also used as indicators of adverse effect under NEPA. The following transportation and traffic significance criteria were derived from previous environmental impacts assessments and from Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). Under CEQA, project-related transportation and traffic impacts would be significant if the project would:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?
- Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Result in inadequate emergency access?
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

D.14.3.2 Applicant Proposed Measures

SDG&E has proposed Applicant Proposed Measures (APMs) TRANS-01 through TRANS-07, which include measures to reduce traffic impacts during construction. These APMs would be implemented as part of SDG&E's proposed project and are described in Section B.7 of this EIR/EIS.

D.14.3.3 Direct and Indirect Effects

Impact TRANS-1 Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

Table D.14-4 lists the TRANS-1 impacts and classification of the impacts under CEQA identified for each of the proposed power line replacement projects. As summarized in Table D.14-4 and discussed below, overall, with implementation of the above-listed APMs, temporary impacts (TRANS-1) would not be adverse under NEPA, and under CEQA would be less than significant (Class III).

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
TL682	Roadway Network	TL682 generally follows a similar route as SR-76, but is not coincident with SR-76, and spans it at 15 locations. Several other rural roadways spanned by the line are listed in Table D.14-2. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) and staging areas may fully or partially encroach on several roadways, including SR-76, Valley Center Road, Red Gate Road, and Poomacha Road. Since existing LOS on area roads is B, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	Since TL682 generally follows along SR-76, a portion of which serves bus route 892. Temporary impacts to bus service during construction are expected to be similar to those discussed above for traffic in this area. With implementation of APM TRANS-01 through APM TRANS-05 SDG&E would ensure that potential temporary impacts to bus service along this route would be adequately addressed. Since operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels, no impacts to bus service is expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bikeways	Construction related work sites and staging areas may fully or partially encroach on TL682 or other area roadway shoulders, thereby, temporarily interfering with the cyclists' access in the area. The increase in trips along area roadways during construction may also temporarily interfere with cyclists' use of area roadways. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists in the project area would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
TL626	Roadway Network	The northern tip of the TL626 alignment crosses SR-78; otherwise the line crosses rural roads and unpaved Forest Service roads and ROW access roads. Rural roadways spanned by the line are shown in Table D.14-2. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on several local roadways, including Boulder Creek Road, Burrell Way, and Oak Grove Drive. Since existing LOS on area roads are between	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		A and C, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	
	Bus Facilities	No bus routes intersect with the TL626 alignment. Therefore, SDG&E's proposed project along TL626 would not directly impact bus service. Since existing LOS on area roads are between A and C, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in traffic delays that would adversely impact bus service. No impacts to bus service are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bikeways	The northern tip of the TL626 alignment crosses SR-78; otherwise the line crosses rural roads and unpaved Forest Service roads and ROW access roads. Rural roadways spanned by the line are shown in Table D.14-2. Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
TL625	Roadway Network	The major public roadway that would be crossed by TL625 is I-8, along the northeastern portion of the alignment. Temporary work sites are not located within I-8 itself but may possibly be located within its ROW. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on several roadways, including Japatul Road, Carveacre Road, Spice Way, Tumeric Way, Japatul Valley Road, Wildwood Glen Lane, and Oak Grove Drive. Since existing LOS on area roads is between A and C, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		traffic trips along area roadways from current levels.	
	Bus Facilities	The TL625 alignment intersects with Bus Route 888 along I-8, however there are no pole locations in this area, and there are not expected to be any temporary work sites that would interfere with traffic flow along I-8. Therefore, SDG&E's proposed project along TL626 would not directly impact bus service. Since existing LOS on area roads are between A and C, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in traffic delays that would adversely impact bus service. No impacts to bus service are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bikeways	Rural roadways spanned by TL625 are shown in Table D.14-2. Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
TL629	Roadway Network	Major regional roadways crossed by TL629 include SR-79, I-8, Old Highway 80, Buckman Springs Road, La Posta Road, and Pine Valley Road. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on several roadways, including Hulburd Grove Drive, Oak Grove Drive, River Drive, Viejos Boulevard, SR-79, Old Highway 80, Farley Flat Road, Hamilton Lane, Corte Madera Road, Pine Valley Road, Sunrise Highway, Cameron Truck Trail, Buckman Springs Road, La Posta Circle, and Stagecoach Springs Road. Since existing LOS on area roads is between A and D (along a portion of Old Highway 80) as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	Bus Routes 888 and 894 are spanned by TL629 at points along Old Highway 80, I-8, and Buckman Springs Road in Descanso, Pine Valley, and Boulder Oaks. Temporary impacts to bus service	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		during construction are expected to be similar to those discussed above for traffic in this area. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to bus service along this route would be adequately addressed. Since operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels, no impacts to bus service is expected during operations and maintenance of SDG&E's proposed project.	
	Bikeways	A portion of Old Highway 80 in Pine Valley that follows the alignment of TL629 includes a striped lane for one-way bike travel (SANDAG 2014). Where SDG&E's proposed project would intersect with this segment of Old Highway 80, as well as with other public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
TL6923	Roadway Network	The main roadways crossed by TL6923 include Barrett Lake Road and Lake Morena Drive. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on several roadways, including Tumeric Way, Lake Morena Drive, and Hauser Creek Road. Since existing LOS on area roads is between A and C, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	TL6923 does not intersect with any bus routes. SDG&E's proposed project would not result in impacts to bus routes in this area.	Not adverse under NEPA and no impact under CEQA.
	Bikeways	Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	
C79	Roadway Network	The only public road that the existing C79 alignment spans is Boulder Creek Road near the eastern end of its alignment. The proposed new underground alignment follows Lookout Road, which is a fire access road and not a public road. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on Boulder Creek Road. Since existing LOS on this road is between A and C, as shown on Table D.14-2, the temporary encroachment along this roadway as well as an increase in traffic along other nearby roads during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	C79 does not intersect with any bus routes. SDG&E's proposed project would not result in impacts to bus routes in this area.	Not adverse under NEPA and no impact under CEQA.
	Bikeways	Where SDG&E's proposed project would intersect with Boulder Creek Road, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05 SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
C78	Roadway Network	The only public roads crossed by distribution line C78 are Viejas Grade Road, Via Arturo, and Red Oak Road; otherwise, the line crosses or parallels unpaved roads used for the purposes of maintaining the line. The proposed relocation of the line would be along and coincident with Viejas Grade Road and, at the eastern end of C79, Via Arturo Road. Review of project plans and aerial photography indicate that temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on these roads. Since existing LOS on area roads is between A and C, as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.14 TRANSPORTATION AND TRAFFIC**

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	
	Bus Facilities	C78 does not intersect with any bus routes. SDG&E's proposed project would not result in impacts to bus routes in this area.	Not adverse under NEPA and no impact under CEQA.
	Bikeways	Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of the proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
C157	Roadway Network	C157 follows the general route of Skye Valley Road, and currently crosses it four times along the alignment. Temporary work areas, stringing sites, and a staging area may partially encroach on Skye Valley Road and the Forest Service road. Since Skye Valley Road provides access to a limited number of properties and has very little traffic, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	C157 does not intersect with any bus routes. SDG&E's proposed project would not result in impacts to bus routes in this area.	Not adverse under NEPA and no impact under CEQA.
	Bikeways	Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
C442	Roadway Network	The northern segment of C442 generally follows Pine Creek Road. The southern segment of C442 is located in an undeveloped area, not near any public roadways. Temporary work sites (pole installation sites and stringing sites) may fully or partially encroach on Pine Creek Road and Los Pinos Road (southern tip of southern segment). Since existing LOS is between A and C, as shown on Table D.14-2, the temporary increase in	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		traffic during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	
	Bus Facilities	C442 does not intersect with any bus routes. SDG&E's proposed project would not result in impacts to bus routes in this area.	Not adverse under NEPA and no impact under CEQA.
	Bikeways	Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
C440	Roadway Network	This distribution line generally follows San Diego County S-1 (Sunrise Highway), but includes numerous spurs and tees that serve developed communities areas near Mount Laguna. Major roadways that would be crossed by this distribution segment include Old Highway 80, I-8, and the Sunrise Highway. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2. Temporary work sites (pole installation sites, stringing sites, trenching areas) associated with wood-to-steel conversion and undergrounding along C440 may fully or partially encroach on Sunrise Highway, Sheephead Mountain Road, Morris Ranch Road, Mount Laguna Drive, and Laguna Meadow Road. The major undergrounding work for the segment would occur along the Sunrise Highway. Since existing LOS on area roads is between A and D (portions of Old Highway 80 are LOS D), as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	The southern end of C440 intersects with bus route 888 along Old Highway 80 in Pine Valley. Temporary impacts to bus service during construction are expected to be similar to those discussed	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
D.14 TRANSPORTATION AND TRAFFIC**

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E's Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
		above for traffic in this area. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to bus service along this route would be adequately addressed. Since operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels, no impacts to bus service are expected during operations and maintenance of SDG&E's proposed project.	
	Bikeways	Where SDG&E's proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists' use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05 SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.
C449	Roadway Network	Major Roadways that are crossed by C449 include Old Highway 80, Buckman Springs Road, and Morena Stokes Valley Road. Other minor and/or rural roadways spanned by the line are shown in Table D.14-2. Temporary work sites (pole installation sites, stringing sites, and trenching) associated with wood-to-steel conversion and undergrounding along C449 may fully or partially encroach on Old Highway 80, Buckman Springs Road, and Corral Canyon Drive. Since existing LOS on area roads is between A and D (a portion of Old Highway 80 is LOS D), as shown on Table D.14-2, the temporary increase in traffic along area roadways during construction is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels.	Not adverse under NEPA and less than significant (Class III) under CEQA.
	Bus Facilities	The northern end of the existing C449 intersects with bus route 888 along Old Highway 80 in Pine Valley. Temporary impacts to bus service during construction are expected to be similar to those discussed above for traffic in this area. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to bus service along this route would be adequately addressed. Since operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current levels, no impacts to bus service is expected during operations and maintenance of SDG&E's proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.

**Table D.14-4
Transportation and Traffic Impacts Associated with SDG&E’s Proposed Project**

Project Component	Impact Area	Description of Impact	Significance Determination
	Bikeways	Where SDG&E’s proposed project would intersect with public roads in the area, temporary impacts to cyclists may occur. Additionally, the increase in trips along area roadways may also temporarily interfere with cyclists’ use of area roadways during construction. Through implementation of APM TRANS-01, APM TRANS-02, and APM TRANS-05, SDG&E would ensure that potential temporary impacts to cyclists along this route would be adequately addressed. No impacts to cyclists are expected during operations and maintenance of SDG&E’s proposed project.	Not adverse under NEPA and less than significant (Class III) under CEQA.

Roadways

During construction activities, construction crew personnel vehicles, construction equipment, and trucks would be required to mobilize on local roadways and access roads for removal and replacement of alignment facilities.

Table D.14-1, Public Access Roadways, lists the roadways that the project’s construction vehicles would use to access construction sites along the project alignment throughout the 5-year construction period. Table D.14-1 also lists the roadway classifications, number of lanes, and LOS of these area roadways. As shown on the table, the LOS of the roadways varies from A to C, depending on the roadway segment, with the exception of Old Highway 80, which has an LOS ranging from A to D. As discussed above, local and minor roads do not have LOS designations as the traffic volumes on these roads do not warrant data collection.

As discussed in Section B.5.3, during peak construction, a maximum of 38 crews working could be required at one time, resulting in between approximately 304 and 532 trips per day for construction crews and equipment/material deliveries during peak conditions across the 563,200-acre project area. However, the average number of crews working at one time would be 10, resulting in between 80 and 140 trips per day across the entire project area. Table B-7, Peak Construction Personnel, list the project component and the peak number of personnel expected during construction of that component. As shown in Table B-7, for certain project components, the number of personnel required during construction would be greater. The temporary increase along area roadways due to all construction-related traffic, as well as construction-related activities where individual pole sites are located adjacent to the roadway would temporarily affect traffic on local roadways. However, through implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to LOS on area roadways would be addressed through the development and implementation of a Traffic Control

Plan, as well as caution signs and flagmen used to regulate traffic where necessary, coordination with local jurisdictions, scheduling temporarily lane closures to occur during off-peak hours, and ensuring that emergency vehicle access would be maintained at all times and the impacts would not be adverse under NEPA and under CEQA would be less than significant (Class III).

Operation and maintenance of SDG&E's proposed project along with other SDG&E electric facilities proposed to be covered under the MSUP would require routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks similar to those currently conducted by SDG&E. These activities would resemble those currently administered by SDG&E and would not increase the number of vehicle trips or use of area roadways from those currently ongoing in such a way as to alter or adversely affect the current use or LOS of project area roadways. Therefore, impacts to area roadways from ongoing operations and maintenance of the project facilities would not be adverse under NEPA and under CEQA impacts would be less than significant (Class III).

Railways

There are no railways within the project area; therefore, the project would not result in impacts to railway networks.

Bus Facilities

As discussed above, bus service provided by the San Diego Metropolitan Transit System is limited in the project area, but does follow along some roadways that the project alignment spans, such as SR-76, Old Highway 80, I-8, and Buchman Springs Road. Temporary impacts to bus service during construction are expected to be minimal with implementation of APM TRANS-01 through APM TRANS-05, which will ensure continued safe traffic flow along bus routes during peak-traffic times. A short discussion of impacts along each project segment is included in Table D.14-4. Once construction is complete, operations and maintenance activities along the project alignment would be similar to existing operations and maintenance activities, and are not expected to impact bus routes. Overall, impacts on bus routes during construction would not be adverse under NEPA, and would be less than significant (Class III) under CEQA. During operations and maintenance activities, impacts under NEPA would not be adverse, and under CEQA would be less than significant (Class III).

Bicycle Facilities

As discussed above, cyclists may use area roadways, including a portion of Old Highway 80 in Pine Valley, which is a designated bikeway, as well other area roadways that are not designated bikeways, including SR-76, SR-79, and SR-94. Construction-related work sites and staging areas

may fully or partially encroach on roadway shoulders, thereby temporarily interfering with cyclists' access in the area. The temporary increase of traffic on area roadways during construction may also interfere with cyclists' use of area roadways. A short discussion of impacts along each project segment is included below in Table D.14-4. As discussed above, SDG&E will prepare a Traffic Control Plan and use caution signs and/or flagmen to regulate traffic where necessary and to maintain a safe transportation corridor during construction per APM TRANS-01, APM TRANS-02, and APM TRANS-05. Once construction is complete, operations and maintenance activities along the project alignment, including associated traffic trips from operations and maintenance staff and equipment vehicles, are not expected to increase from current trips associated with operations and maintenance of the existing SDG&E transmission infrastructure. Overall, impacts on cyclists' use of area roadways during construction would not be adverse under NEPA, and would be less than significant (Class III) under CEQA. During operations and maintenance activities, impacts under NEPA would not be adverse, and under CEQA would be less than significant (Class III).

Impact TRANS-2 Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

As stated above, SANDAG is the designated congestion management agency for the San Diego region and is responsible for preparing the RTP, of which the CMP is an element used to monitor transportation system performance, develop programs to address near- and long-term congestion, and better integrate land use and transportation planning decisions. The CMP includes a requirement for enhanced CEQA review applicable to certain large developments that generate an equivalent of 2,400 average daily vehicle trips or 200 or more Peak Hour vehicle trips. This requirement does not apply to SDG&E's proposed project since the project is not a large development project, and the project would not permanently generate 2,400 average daily trips or 200 or more Peak Hour vehicle trips. As discussed in Section B.5.3, during peak construction, a maximum of 38 crews working could be required at one time, resulting in between approximately 304 and 532 trips per day for construction crews and equipment/material deliveries during peak conditions across the 563,200-acre project area. However, the average number of crews working at one time would be 10, resulting in between 80 and 140 trips per day across the entire project area. Table B-7, Peak Construction Personnel, list the project component and the peak number of personnel expected during construction of that component. Once construction is complete, SDG&E's proposed project would not add any new trips to area roadways, since operations and maintenance related trips would continue to occur in the area as they do currently.

Additionally, as demonstrated above under Impact TRANS-1, no portion of the project would conflict with a LOS standard on area roadways such that a significant or adverse impact would occur. Though temporary work areas, stringing sites, and a staging area may partially encroach on area roadways, and cause a temporary increase in traffic on area roadways during construction, the project is not expected to result in adverse impacts on traffic flow. With implementation of APM TRANS-01 through APM TRANS-05 SDG&E would ensure that potential temporary impacts to area roadways due to construction work and project-related traffic on area roadways would not exceed significance thresholds; therefore, overall impacts are considered not adverse under NEPA and less than significant (Class III) under CEQA.

Impact TRANS-3 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

SDG&E's proposed project would replace existing power lines and associated poles, and would result in a shift in the location of some of the power lines and poles. None of the poles would be moved to within a public roadway or closer to a public roadway such that the pole would create a hazard to traffic. The project does not include any changes to public roads, and therefore would not result in a hazard to the public associated with unsafe road design. The project is not considered to cause impacts associated with hazards due to road design or road features; therefore impacts under NEPA would not be adverse and under CEQA would be less than significant (Class III).

Impact TRANS-4 Result in inadequate emergency access?

As discussed previously, SDG&E's proposed project would require that temporary work areas, stringing sites, and a staging area may partially encroach on public roadways in the area, which could result in inadequate emergency access. However, through implementation of APM TRANS-03, SDG&E will ensure emergency vehicle access will be maintained at all times. Therefore, impacts to emergency access resulting from project construction would not be adverse under NEPA and less than significant under CEQA (Class III).

Impact TRANS-5 Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Refer to the discussion above under Impact TRANS-1. With implementation of APM TRANS-01 through APM TRANS-05, SDG&E would ensure that potential temporary impacts to area roadways used by bus transit and cyclists due to construction work and project-related traffic on area roadways would be adequately addressed. Operations and maintenance of SDG&E's proposed project would not result in an increase in traffic trips along area roadways from current

levels. Overall, with implementation of APM TRANS-01 through APM TRANS-05, impacts would not be adverse under NEPA, and would be less than significant under CEQA (Class III).

D.14.4 Forest Service Proposed Actions

D.14.4.1 TL626 Alternative Routes

Environmental Setting/Affected Environment

Each of the five Forest Service Proposed Action options would relocate a segment of the TL626. The farthest relocation would be approximately 2 miles east of the existing alignment. The primary roadway network needed to access all five options would be similar to SDG&E's proposed project; therefore, the environmental setting is assumed to be similar to that described in Sections D.14.1 and D.14.2 except where noted.

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Environmental Effects

Impacts TRANS-1 through TRANS 5: Options 1 and 2 would reroute a segment of TL626 to the east along a new undisturbed ROW approximately 5.5 miles (Option 1) and 5.6 miles (Option 2; Figure B-4a). These options would also require construction of approximately 3.9 miles of new access roads to reach new pole locations. All other project components would remain the same. Construction traffic impacts would be greater because of the increased number of road crossings. In addition to the roadways listed in Table D.14-2, Engineers Road, Penstemon Road, and Penstemon Lane would also be impacted. Further, the alignment would cross Boulder Creek Road four times, Engineers Road one time, and Eagle Peak Road one time. Traffic delays would be experienced on these roads as crossing work is completed. Numerous other small, unnamed roads would also be crossed with the potential for sporadic delays. Although temporary impacts to traffic would be greater than SDG&E's proposed project, with implementation of APM TRANS-01 through APM TRANS-07, which include measures to reduce traffic impacts during construction, Impacts TRANS 1 through TRANS 5 would be considered not adverse under NEPA and less than significant under CEQA (Class III).

Option 3: Partial Underground Relocation in Boulder Creek Road

Environmental Effects

Impacts TRANS-1 through TRANS-5: Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. The rerouted segment

of Option 3a is approximately 11.4 miles long, and Option 3b is 6.25 miles long (each option includes an approximately 1-mile overland segment to interconnect back into the existing TL626 alignment). Temporary impacts to transportation and traffic associated with Options 3a and 3b would be greater than those described in Section D.14.3.3 for SDG&E's proposed project, as construction activities and equipment would occur within the Boulder Creek Roadway ROW, directly disrupting traffic for an extended time period along Boulder Creek Road.

As construction, operations, and maintenance would proceed in a similar fashion as that described for SDG&E's proposed project in areas proposed to be undergrounded, it is anticipated that with implementation of APM TRANS-01 through APM TRANS-05 and MM LU-5, adverse and significant construction traffic Impacts TRANS-1 through TRANS-5 would be reduced through the development and implementation of a Traffic Control Plan and obtaining the required encroachment permit from the County of San Diego Department of Public Works; therefore, impacts would be mitigated under NEPA and less than significant with mitigation under CEQA (Class II).

Option 4: Overhead Relocation along Boulder Creek Road

Environmental Effects

Impacts TRANS-1 through TRANS-5: Option 4 would consist of relocating a segment of TL626 overhead along Boulder Creek Road to the Pine Hills Fire Station (approximately 7.5 miles) and then merging with proposed Options 1 or 2 overland alignments for approximately 2.1 miles to interconnect with pole Z213680 (see Figure B-4a). All other project components would remain the same. Temporary impacts to transportation and traffic associated with Option 4 would be greater along Boulder Creek Road to those described in Section D.14.3.3 for SDG&E's proposed project. However, with implementation of APM TRANS-01 through APM TRANS-05, construction traffic impacts would be reduced through the development and implementation of a Traffic Control Plan; therefore, overall impacts are considered not adverse under NEPA and would be less than significant under CEQA (Class III).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Environmental Effects

Impacts TRANS-1 through TRANS-5: Option 5 would consist of relocating a portion of TL626 around the Inaja Picnic Area and as shown in Figure B-4c, would consist of approximately 2,100 feet of relocated overhead alignment along with a 400-foot underground segment located within an existing parking lot. All other project components would remain the same. Construction and operational impacts related to transportation and traffic would essentially

be the same for the relocation of TL626 under Option 5 as described in Section D.14.3.3 for SDG&E's proposed project. As the Inaja Picnic area is located in the same area of SDG&E's proposed project, just south of SR-78 immediately east of the existing alignment for TL626, there would not be a substantial change to the baseline condition regarding the roadways that would be impacted during construction. Therefore, as with SDG&E's proposed project, with implementation of APM TRANS-01 through APM TRANS-07, Impacts TRANS-1 through TRANS-5 would be not be adverse under NEPA, and under CEQA, impacts would be less than significant (Class III).

D.14.4.2 C157 Partial Relocation to Avoid Designated Wilderness

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 2: City of San Diego Modified Alignment

Environmental Setting/Affected Environment

Sections D.14.1 and D.14.2 describe the existing environmental setting associated with SDG&E's proposed project. The Forest Service Proposed Action for C157 would be in the same geographic region as SDG&E's proposed project; therefore, the transportation and traffic setting would be the same as that identified in Sections D.14.1 and D.14.2.

Environmental Effects

Impacts TRANS-1 through TRANS-5: Options 1 and 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). All other project components would remain the same. As the same roadway network and transportation facilities would be impacted with implementation of Options 1 and 2, there would not be a substantial change to the baseline condition with regards to public access roadways, railways, bus, air, or bikeway facilities; therefore, transportation and traffic impacts would reflect similar impact findings previously discussed in Section D.14.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, with implementation APM TRANS-01 through APM TRANS-05, construction traffic impacts and impacts to traffic flow, Impacts TRANS-1 through TRANS-5, would be reduced through the development and implementation of a Traffic Control Plan. Therefore, overall impacts are considered not adverse under NEPA and less than significant under CEQA (Class III).

D.14.4.3 C440 Mount Laguna Underground Alternative

Environmental Setting/Affected Environment

As this area is in the same geographic region as SDG&E's proposed project and would consist of undergrounding within existing paved road ROWs, the environmental setting is assumed to be similar to that identified in Sections D.14.1 and D.14.2.

Environmental Effects

Impacts TRANS-1 through TRANS-5: Besides undergrounding C440 as proposed by the project, this alternative would consist of undergrounding an additional 14.3 miles of C440 within existing paved roadways in the Laguna Mountain Recreation Area. Temporary impacts to transportation and traffic as well as access would be greater along affected roadways in the Laguna Mountain Recreation area to those as described in Section D.14.3.3 for SDG&E's proposed project as construction activities and equipment would be within roadways. As construction, operations, and maintenance would proceed in a similar fashion as that described for SDG&E's proposed project in areas proposed to be undergrounded, it is anticipated that with implementation of APM TRANS-01 through APM TRANS-05 and MM LU-5, adverse and significant construction traffic Impacts TRANS-1 through TRANS-5 would be reduced through the development and implementation of a Traffic Control Plan and obtaining required encroachment permits from the County of San Diego Department of Public Works. Therefore, impacts would be mitigated under NEPA and less than significant with mitigation under CEQA (Class II).

D.14.5 BIA Proposed Action

Environmental Setting/Affected Environment

Sections D.14.1 and D.14.2 describe the existing environmental setting associated with TL682. The BIA Proposed Action for TL682 would relocate a portion of the line and underground approximately 1,500 feet on Tribal lands. As this area is in the same geographic region as SDG&E's proposed project, the transportation and traffic setting would be similar to that identified in Sections D.14.1 and D.14.2.

Environmental Effects

Impacts TRANS-1 through TRANS-5: Impacts TRANS-1 through TRANS-5 would reflect similar impact findings previously discussed in Section D.14.3.3 for SDG&E's proposed project. Although additional construction activity will be associated with open trenching for undergrounding a portion of TL682, this would not have an adverse impact on traffic as it will be

short-term and generally within the TL682 corridor. As with SDG&E's proposed project, with implementation APM TRANS-01 through APM TRANS-05, construction traffic impacts and impacts to traffic flow, Impacts TRANS-1 through TRANS-5 would be reduced through the development and implementation of a Traffic Control Plan. Therefore, impacts are considered not adverse under NEPA and less than significant under CEQA (Class III).

D.14.6 Additional Alternatives

D.14.6.1 Partial Removal of Overland Access Roads

Environmental Setting/Affected Environment

This alternative would be in the same study area as the proposed TL626 alignment; therefore, the environmental setting would be the same as that identified in Sections D.14.1 and D.14.2.

Environmental Effects

Impacts TRANS-1 through TRANS-5: This alternative would remove up to 10.5 miles of exclusive use access roads that are greater than 25% grade, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre). Impacts TRANS-1 through TRANS-5 would reflect similar impact findings previously discussed in Section D.14.3.3 for SDG&E's proposed project as road segments proposed to be removed under this alternative are used exclusively to access electrical facilities and are not part of the general roadway and circulation system. As with SDG&E's proposed project, with implementation APM TRANS-01 through APM TRANS-05, construction traffic impacts and impacts to traffic flow, Impact TRANS-1 through TRANS-5 would be reduced through the development and implementation of a Traffic Control Plan. Therefore, impacts are considered not adverse under NEPA and less than significant under CEQA (Class III).

D.14.6.2 Removal of TL626 from Service

Environmental Setting/Affected Environment

This alternative would remove TL626 from service and replace it with system upgrades; either with TL6931 upgrades or a TL625 loop-in as described below. In order to serve existing customers, segments of TL626 would also be converted from 69 kV to 12 kV. The setting associated with these upgrades is described as follows:

- a. Upgrade the existing 69 kV TL6931 from the Crestwood Substation to the Boulevard Substation: The setting associated with this component is largely described in SDG&E's TL6931 Fire Hardening Project Proponent's Environmental Assessment (PEA) (SDG&E

2012). As described in SDG&E's PEA, the existing ROW supports a 69 kV line. The public access roadways that would be used for this alternative include I-8, McCain Valley Road, Old Highway 80, and Highway 94. Roadways that would be spanned by this alignment include Live Oak Springs Road, Campo Road (Highway 94), Tierra Del Sol Road, Jewell Valley Road, and McCain Lane. In addition, as TL6931 is an existing power line, there are existing access roads or unimproved county roads that provide access to the alignment. There are no airports or active rail lines in the immediate vicinity of the alignment. The nearest airport is located in Jacumba, 7 miles southeast, and the San Diego and Arizona Eastern (SD&A) Railway is approximately 3 miles south of the alignment, which is not an active line. One bus route, Route 888, provides daily bus service to Boulevard and Jacumba via Old Highway 80. The nearest transfer point is in Boulevard, located on Old Highway 80 near the intersections of Tierra del Sol Road and Jewel Valley Road. In addition, Old Highway 80 is a designated bike lane between west of the TL6931 alignment and Campo Road (Highway 94) and is a designated bike path between Campo Road and Boulevard.

- b. Loop-in TL625 into the Suncrest Substation (see Figure C-2). The setting associated with the new 3-mile TL625 loop-in is largely located within the CNF approximately 100 feet from the Sunrise Powerlink ROW between Japatul Road and Suncrest Substation. This area has been described in the Sunrise Powerlink Project Final EIR/EIS. The proposed loop-in consists of rugged terrain with minimal access roads along the route. Roadways providing access to the area include I-8, Alpine Boulevard, Japatul Valley Road, Lyons Valley Road, and Japatul Road. In addition, the nearest airport is a privately owned airport: the On the Rocks Airport. This airport is not subject to the requirements of Federal Regulation Title 14 because it does not meet the definition of an airport under Section 77. The nearest public airport to the loop-in is Gillespie Field, which is located approximately 15 miles west. There are no active rail lines, bus routes, or designated bicycle paths in the immediate vicinity of the alignment.
- c. Convert portions of TL626 within the same study area as SDG&E's proposed project; therefore, the environmental setting would be the same as that identified in Sections D.14.1 and D.14.2 for this component.

Environmental Effects

Under this alternative, a 6-mile portion of TL6931 would be reconstructed, or a new 3-mile 69 kV loop-in would be developed along the Sunrise Powerlink, and segments of TL626 would be converted from 69 kV to 12 kV.

The Reconstruction of TL6931

Impacts TRANS-1 through TRANS-5: Reconstruction of TL6931 would consist of construction as well as operations and maintenance activities similar to that described for the project. Construction traffic would result in a slight temporary increase to existing daily traffic, and construction activities may disrupt traffic at any of the five roadways that would be crossed by TL6931. Operations and maintenance would not necessitate any modification to existing public roadways. As with SDG&E's proposed project, with implementation of APM TRANS-01 through APM TRANS-05, construction traffic impacts and impacts to traffic flow, Impacts TRANS-1 and TRANS-5 would be reduced through the development and implementation of a Traffic Control Plan. Therefore, impacts are considered not adverse under NEPA and less than significant under CEQA (Class III).

Development of the New 3-Mile Loop-in of TL625

Impacts TRANS-1 through TRANS-5: Development of the new TL625 loop-in would consist of construction as well as operations and maintenance activities similar to those described for the project in areas of rugged terrain.

Construction traffic would result in a slight temporary increase to existing daily traffic, and construction activities may disrupt traffic at any of the five roadways that provide access to TL625. Operations and maintenance would not necessitate any modification to existing public roadways. Since the proposed loop-in would be adjacent to the Sunrise Powerlink and would be shorter in height, no impacts to the On the Rocks Airport during operations and maintenance would occur as the loop-in would be adjacent to an existing transmission line corridor. As with SDG&E's proposed project, with implementation of APM TRANS-01 through APM TRANS-05, construction traffic impacts and impacts to traffic flow, Impacts TRANS-1 and TRANS-5 would be reduced through the development and implementation of a Traffic Control Plan. Therefore, impacts are considered not adverse under NEPA and less than significant under CEQA (Class III).

Convert Segments of TL626 from 69 kV to 12 kV

Impacts TRANS-1 through TRANS-5: Conversion of segments of TL626 to 12 kV would consist of construction as well as operations and maintenance activities similar to those described for the project; therefore, Impacts TRANS-1 through TRANS-5 would reflect similar impact findings previously discussed in Section D.14.3.3 for SDG&E's proposed project. As with SDG&E's proposed project, implementation of APM TRANS-01 through APM TRANS-05, and APM TRANS-07, impacts would not be adverse under NEPA, and under CEQA, would be less than significant (Class III).

D.14.7 No Action Alternative

Environmental Effects

Impacts TRANS-1 through TRANS-5: Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on CNF-managed lands as well as develop additional transmission upgrades elsewhere as described in Section C.1.4 of this EIR/EIS. While none of the facilities associated with SDG&E's proposed project would be constructed, removal of the electric lines and restoration activities within the CNF along with the development of additional transmission lines in conformance with CAISO requirements and/or alternatives means of delivering electrical service elsewhere would result in similar construction impacts as described in Section D.14.3; therefore, overall impacts to transportation and traffic would not be reduced. Similar to SDG&E's proposed project, impacts associated with temporary construction impacts to traffic due to removal and restoration of the project sites along with development of new electric lines elsewhere would be similar to SDG&E's proposed project and would not be adverse under NEPA. Under CEQA, impacts would be considered less than significant (Class III).

D.14.8 No Project Alternative

Environmental Effects

Impacts TRANS-1 through TRANS-5: Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain. Therefore, none of the construction impacts described in Section D.14.3 would occur. Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic access road maintenance, equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. These activities would not increase in duration, intensity, or frequency over existing conditions, and therefore no impacts over existing conditions to roadways, railways, bus, or bicycle facilities would occur.

D.14.9 Mitigation Monitoring, Compliance, and Reporting

As described in Section D.14.3.2, SDG&E has proposed APMs TRANS-01 through TRANS-05, and APM TRANS-07, which include measures for temporary lane closures; provisions for emergency vehicle access at all times; use of caution signs and/or flagmen; coordination with local jurisdictions; development and implementation of a Traffic Control Plan; and use of existing access roads, which would be implemented as part of SDG&E's proposed project to reduce impacts related to transportation and traffic (see Section B.7 of this EIR/EIS). APM

TRANS-06, coordination with FAA for flight traffic, is addressed in Section D.7, Public Health and Safety of this EIR/EIS.

D.14.10 Residual Unavoidable Effects

SDG&E's proposed project and alternatives would result in short-term impacts related to transportation and traffic during construction. APMs provided in Section D.14.3.3 would be implemented to reduce these impacts to not adverse under NEPA and less than significant under CEQA and therefore no residual impacts would occur for SDG&E's proposed project or alternatives.

D.14.11 References

California Vehicle Code. 1983. Division 15, Chapter 5, Article 1, Section 35551 (Computation of Allowable Gross Weight). Adopted January 1, 1983.

Caltrans (California Department of Transportation). 2009. *Construction Manual*, as amended. Last updated August 2009.

County of San Diego. 2009. County of San Diego General Plan Part XII: Public Facility Element. Adopted March 13, 1991. Amended October 14, 2009.

County of San Diego 2011. County of San Diego General Plan Mobility Element. Adopted August 3, 2011. Accessed February 4, 2014. <http://www.sdcounty.ca.gov/pds/generalplan.html>.

County of San Diego 2014. "County Maintained Roads." Accessed January 31, 2014. <http://www.sdcounty.ca.gov/dpw/roads/maintroad.html>.

CPUC (California Public Utilities Commission). 1948.

CPUC. 2012. *Rules for Overhead Electric Line Construction*. General Order No. 95. January 2012. Accessed March 15, 2013. <http://docs.cpuc.ca.gov/PUBLISHED/Graphics/162158.PDF>.

Forest Service (U.S. Forest Service). 2005. *Land Management Plan*. R5-MB-0777. September 2005. http://www.fs.usda.gov/detail/cleveland/landmanagement/planning/?cid=fsbdev7_016561.

- Forest Service. 2011. "Environmental Impact Statements and Related Documents." In *National Environmental Policy Act Handbook*. Washington, DC: USFS. FSH 1909.15. September 14, 2011.
- SANDAG (San Diego Association of Governments). 2014. "San Diego Regional Bike Map." iCommute. February 3, 2014. <http://www.icommutesd.com/Bike/BikeMap.aspx>.
- SanGIS (San Diego Geographic Information System). 2013. Transportation GIS data.
- SDG&E (San Diego Gas & Electric). 2012. *Proponent's Environmental Assessment for the TL6931 Fire Hardening/Wind Interconnect Project*. December 2012. Accessed April 2014. http://www.cpuc.ca.gov/environment/info/dudek/Wind_Interconnect/SDGE%20Wind%20Interconnect%20PEA.pdf.
- SDG&E. 2013a. *Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California, Revised Plan of Development*. Prepared by Insignia Environmental. Encinitas, California: Insignia Environmental. April 2013. [http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD/00.FINAL%20CNF%20POD%20\(10-17-12S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD/00.FINAL%20CNF%20POD%20(10-17-12S).pdf).
- SDG&E. 2013b. Partial response to Cleveland National Forest Power Line Replacement Projects PTC Energy Division Data Request 02 (Dated December 20, 2012). Response dated January 25, 2013.
- SDG&E. 2013c. Complete response to Cleveland National Forest Review of the SDG&E Preliminary Plan of Development for the Master Special Use Permit (Dated December 7, 2012). Response dated February 15, 2013.
- SDMTA (San Diego Metropolitan Transit Authority). 2014. San Diego County Regional Transit Map. Effective April 2013. Accessed January 31, 2014. <http://www.sdmts.com/RTM/rtm-2013.pdf>.

D.15 Electromagnetic Fields

This section provides information regarding electromagnetic fields (EMFs) associated with electric utility lines and the associated potential effects of SDG&E's proposed project as they relate to public health and safety.

This section does not consider EMFs in the context of determination of environmental impacts because there is no agreement among scientists that EMFs create a health risk, and there are no federal or state standards limiting human exposure to EMFs from transmission lines in California. The following EMF information is presented to allow understanding of the issue by the public and decision makers.

D.15.1 Defining EMF

Electric fields and magnetic fields are distinct phenomena that occur both naturally and as a result of human activity across a broad spectrum. Naturally occurring electric and magnetic fields are caused by atmospheric conditions and Earth's geomagnetic field. The fields caused by human activity result from technological application of the electromagnetic spectrum for uses such as communications; appliances; and the generation, transmission, and local distribution of electricity. Electric and magnetic fields are vector quantities that have the properties of direction and amplitude (field strength).

Electric and magnetic fields of power lines have the additional property of frequency, which is determined by the rate at which electric and magnetic fields change their direction each second. The hertz (Hz) is the unit of frequency. For power lines in the United States, the frequency of change is 60 times per second, leading to the designation "60 Hz power."

Electric power flows across transmission systems from generating sources to serve electrical loads within the community. The power flowing over a transmission line is determined by the transmission line voltage and the current. The higher the voltage level of the transmission line, the lower the amount of current needed to deliver the same amount of power. For example, a 115,000-volt (115 kilovolt (kV)) transmission line with 200 amperes of current would transmit approximately 40,000 kilowatts (kW), whereas a 230 kV transmission line requires only 100 amperes of current to deliver the same 40,000 kW.

Electric Fields

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Electric field strength is typically described in units of kilovolt per meter (kV/m). Electric field strength attenuates (gets weaker)

rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials such as trees or houses.

Unlike magnetic fields, which penetrate almost everything and are unaffected by buildings, trees, and other obstacles, electric fields are distorted by any object that is within the electric field, including the human body. Even trying to measure an electric field with electronic instruments is difficult because the devices themselves would alter the levels recorded. Determining an individual's exposure to electric fields requires the understanding of many variables, including the electric field itself, how effectively a person is grounded, and a person's body surface area within the electric field.

Electric fields in the vicinity of power lines can cause phenomena similar to the static electricity experienced on a dry winter day, or with clothing just removed from a clothes' dryer, and may result in nuisance electric discharges when touching long metal fences, pipelines, or large vehicles.

Magnetic Fields

Magnetic fields from power lines are created whenever current flows through power lines at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milligauss (mG). Similar to electric field strength, magnetic field strength attenuates rapidly with distance from the source. Unlike electric fields, magnetic fields are not shielded by most objects or materials.

Comparison of Electric and Magnetic Fields

The nature of electric and magnetic fields can be illustrated by considering a household appliance. When the appliance is energized by being plugged into an outlet but not turned on so no current would be flowing through it, an electric field would be generated around the cord and appliance, but no magnetic field would be present. If the appliance is switched on, the electric field would still be present, and a magnetic field would be created. The electric field strength is directly related to the magnitude of the voltage from the outlet, and the magnetic field strength is directly related to the magnitude of the current flowing in the cord and appliance.

D.15.2 EMF Sources in the Proposed Project Area

EMF exposure to the public in developed areas varies over a range of field intensities and durations due to sources in the home and work environments, electric power distribution, and, infrequently, from proximity to transmission lines.

For undeveloped and natural areas such as the project area (see Section D.10, Land Use, for further description), EMFs greater than the very low natural background level are not present

except in the vicinity of the existing 500 kV Southwest Powerlink and as further described in Section D.15.4 near 69 kV power lines and local distribution circuits.

D.15.3 Scientific Background and Regulations Applicable to EMF

EMF Research

For more than 30 years, researchers have questioned the potential effects that EMFs from power lines have had on the environment. Early studies focused primarily on interactions with the electric fields from power lines. The subject of magnetic field interactions began to receive additional public attention in the 1980s as research levels increased. A substantial amount of research investigating both electric and magnetic fields has been conducted over the past several decades; however, much of the body of national and international research regarding EMFs and public health risks remains contradictory or inconclusive.

Extremely low frequency (ELF) fields are known to interact with tissues by inducing electric fields and currents. The electric currents induced by ELF fields commonly found in the environment are normally much lower than the strongest electric currents naturally occurring in the body, such as those that control the beating of the heart.

Research related to EMFs is easily grouped into three general categories: cellular level studies, animal and human experiments, and epidemiological studies. Epidemiological studies have provided mixed results, with some studies showing an apparent relationship between magnetic fields and health effects while other similar studies do not. Laboratory studies and studies investigating a possible mechanism for health effects (mechanistic studies) provide little or no evidence to support this link.

Since 1979, public interest and concern specifically regarding magnetic fields from power lines has increased. The origin of this increase in concern has generally been attributed to publication of the results of a single epidemiological study (Wertheimer and Leeper 1979). This study observed an association between the wiring configuration on electric power lines outside of homes in greater Denver, Colorado, and the incidence of childhood cancer. Since publication of the Wertheimer and Leeper (1979) study, many epidemiological, laboratory, and animal studies regarding EMFs have been conducted.

Research on ambient magnetic fields in homes and buildings in several western states found average magnetic field levels within rooms to be approximately 1 mG; in a room with appliances present, the measured values ranged from 9 to 20 mG (Severson et al. 1988; Silva et al. 1988). Immediately adjacent to appliances (within 12 inches), field values are much higher, as illustrated in Table D.15-1, Magnetic Field from Household Appliances. This table indicates

typical sources and levels of electric and magnetic field exposure the general public experiences from appliances.

Table D.15-1
Magnetic Field from Household Appliances

Appliance	Magnetic Field (mG)	
	12-inch Distance	Maximum
Electric range	3 to 30	100 to 1,200
Electric oven	2 to 25	10 to 50
Garbage disposal	10 to 20	850 to 1,250
Refrigerator	0.3 to 3	4 to 15
Clothes washer	2 to 30	10 to 400
Clothes dryer	1 to 3	3 to 80
Coffee maker	0.8 to 1	15 to 250
Toaster	0.6 to 8	70 to 150
Crockpot	0.8 to 1	15 to 80
Iron	1 to 3	90 to 300
Can opener	35 to 250	10,000 to 20,000
Mixer	6 to 100	500 to 7,000
Blender, popper, food processor	6 to 20	250 to 1,050
Vacuum cleaner	20 to 200	2,000 to 8,000
Portable heater	1 to 40	100 to 1,100
Fans/blowers	0.4 to 40	20 to 300
Hair dryer	1 to 70	60 to 20,000
Electric shaver	1 to 100	150 to 15,000
Color TV	9 to 20	150 to 500
Fluorescent fixture	2 to 40	140 to 2,000
Fluorescent desk lamp	6 to 20	400 to 3,500
Circular saws	10 to 250	2,000 to 10,000
Electric drill	25 to 35	4,000 to 8,000

Source: Gauger 1985.

Methods to Reduce EMFs

EMF levels from transmission lines can be reduced in three primary ways: shielding, field cancellation, or increasing the distance from the source. Shielding, which reduces exposure to electric fields, can be actively accomplished by placing trees or other physical barriers along the transmission line right-of-way (ROW). Shielding also results from existing structures the public may use or occupy along the line. Since electric fields can be blocked by most materials, shielding is effective for the electric fields but is not effective for magnetic fields.

Magnetic fields can be reduced either by cancellation or by increasing distance from the source. Cancellation is achieved in two ways. A transmission line circuit consists of three phases, requiring three separate wires (conductors) on a transmission tower. The configuration of these three conductors can reduce magnetic fields. First, when the configuration places the three conductors closer together, interference, or cancellation, of the fields from each wire is enhanced. This technique has practical limitations because of the potential for short circuits if the wires are placed too close together. There are also worker safety issues to consider if spacing is reduced. Second, in instances where there are two circuits (more than three phase wires), cancellation can be accomplished by arranging phase wires from the different circuits near each other. In underground lines, the three phases are typically much closer together than in overhead lines because the cables are insulated (coated). The distance between the source of fields and the public can be increased by either placing the wires higher above ground, burying underground cables deeper, or by increasing the width of the ROW. These methods can prove effective in reducing fields because the reduction of the field strength drops rapidly with distance.

Scientific Panel Reviews

Numerous panels of expert scientists have convened to review the data relevant to the question of whether exposure to power-frequency EMFs is associated with adverse health effects. These evaluations have been conducted in order to advise governmental agencies or professional standard-setting groups. On behalf of the CPUC, the California Department of Health Services (DHS) completed a comprehensive review of existing studies related to EMFs from power lines and potential health risks (Neutra et al. 2002). This risk evaluation was undertaken by three staff scientists with the DHS. Each of these scientists is identified in the review results as an epidemiologist, and their work took place from 2000 to 2002. The results of this review, “An Evaluation of the Possible Risks from Electric and Magnetic Fields (EMFs) From Power Lines, Internal Wiring, Electrical Occupations, and Appliances,” were published in June 2002. The conclusions contained in the executive summary are provided as follows (Neutra et al. 2002):

- To one degree or another, all three of the DHS scientists are inclined to believe that EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig’s disease (Amyotrophic lateral sclerosis), and miscarriage.
- They strongly believe that EMFs do not increase the risk of birth defects or low birth weight.
- They strongly believe that EMFs are not universal carcinogens, since there are a number of cancer types that are not associated with EMF exposure.
- To one degree or another, they are inclined to believe that EMFs do not cause an increased risk of breast cancer, heart disease, Alzheimer’s disease, depression, or symptoms attributed by some to sensitivity to EMFs. However, all three scientists had judgments that

were “close to the dividing line between believing and not believing” that EMFs cause some degree of increased risk of suicide.

- For adult leukemia, two of the scientists are “close to the dividing line between believing or not believing” and one was “prone to believe” that EMFs cause some degree of increased risk.

The report indicates that the DHS scientists are more inclined to believe that EMF exposure increased the risk of the listed health problems than the majority of the members of scientific committees that have previously convened to evaluate the scientific literature. With regard to why the DHS review’s conclusions differ from those of other recent reviews, the report states:

The three DHS scientists thought there were reasons why animal and test tube experiments might have failed to pick up a mechanism or a health problem; hence, the absence of much support from such animal and test tube studies did not reduce their confidence much or lead them to strongly distrust epidemiological evidence from statistical studies in human populations. They therefore had more faith in the quality of the epidemiological studies in human populations and hence gave more credence to them.

In addition to the uncertainty regarding the level of health risk posed by EMFs, individual studies and scientific panels have not been able to determine or reach consensus regarding what level of magnetic field exposure might constitute a health risk.

Policies, Standards, and Regulations

A number of counties, states, and local governments have adopted or considered regulations or policies related to EMF exposure. The reasons for these actions have been varied; in general, however, the actions can be attributed to addressing public reaction to and perception of EMFs as opposed to responding to the findings of any specific scientific research. Following is a brief summary of the guidelines and regulatory activity regarding EMFs.

International Guidelines

The International Radiation Protection Association, in cooperation with the World Health Organization, has published recommended guidelines for electric and magnetic field exposures. For the general public, the limits are 4.2 kV/m for electric fields and 833 mG for magnetic fields. These organizations have neither governmental authority nor recognized jurisdiction to enforce these guidelines. However, because they were developed by a broad base of scientists, these guidelines have been given merit and are considered by utilities and regulators when reviewing EMF levels from electric power lines.

National Guidelines

Although the U.S. Environmental Protection Agency (EPA) has conducted investigations into EMFs related to power lines and health risks, no national standards have been established. There have been a number of studies sponsored by the EPA, the Electric Power Research Institute, and other institutions. Several bills addressing EMFs have been introduced at the congressional level and have provided funding for research; however, no bill has been enacted that would regulate EMF levels.

The 1999 National Institute of Environmental Health Sciences report to Congress suggested that the evidence supporting EMF exposure as a health hazard was insufficient to warrant aggressive regulatory actions. The report suggested passive measures to educate the public and regulators on means aimed at reducing exposures. The report also suggested the power industry continue its practice of siting lines to reduce public exposure to EMFs and to explore ways to reduce the creation of magnetic fields around lines.

The American Conference of Governmental Industrial Hygienists is not a governmental regulatory agency; it is a professional organization that provides technical knowledge, advice, and guidance on occupational health and safety. In 1991 the ACGIH published the Occupational Threshold Limit Values for 60 Hz EMFs shown in Table D.15-2, Occupational Threshold Limit Values for 60 Hz EMFs. According to WHO, the vast majority of studies have been conducted on power-frequency (50 and 60 Hz) magnetic fields, and as stated previously, the results of these studies are inconclusive.

Table D.15-2
Occupational Threshold Limit Values for 60 Hz EMFs

Category	Electric Field (kV/m)	Magnetic Field (mG)
Occupational exposure should not exceed for longer than 2 hours	25	10,000
Exposure limit for workers	20	1,000
Prudence dictates the use of protective clothing	15	N/A

Note: mG (100 microtesla (μT)).

CPUC Guidelines

In 1991, the CPUC initiated an investigation into electric and magnetic fields associated with electric power facilities. This investigation explored the approach to potential mitigation measures for reducing public health impacts and possible development of policies, procedures, or regulations. Following input from interested parties, the CPUC implemented a decision (D.93-11-013) (CPUC 1993) which requires that utilities use “low cost or no-cost” mitigation measures for facilities requiring certification under General Order 131-D (CPUC 1995). The decision directed

the utilities to use a 4% benchmark for low-cost mitigation. This decision also implemented a number of EMF measurement, research, and education programs, and provided the direction that led to the preparation of the DHS study described previously. The CPUC did not adopt any specific numerical limits or regulation on EMF levels related to electric power facilities.

In Decision D.93-11-013, the CPUC addressed mitigation of EMFs of utility facilities and implemented the following recommendations (CPUC 1993):

- No-cost and low-cost steps to reduce EMF levels
- Workshops to develop EMF design guidelines
- Uniform residential and workplace programs
- Stakeholder and public involvement
- A 4-year education program
- A 4-year nonexperimental and administrative research program
- An authorization of federal experimental research conducted under the National Energy Policy Act of 1992.

In 2006, the CPUC affirmed the low-cost/no-cost policy to mitigate EMF exposure from new utility transmission and substation projects (CPUC 2006a). This decision also adopted rules and policies to improve utility design guidelines for reducing EMFs that were issued in a separate report (CPUC 2006b). The CPUC stated that “at this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences” (CPUC 2006a).

At this time, the CPUC has not implemented a general requirement that utilities include nonroutine mitigation measures or other mitigation measures that are based on numeric values of EMF exposure, and has not adopted any specific limits or regulations on EMF levels related to electric power facilities. The CPUC may determine mitigation measures on a project-by-project basis.

D.15.4 Consideration of Electric and Magnetic Fields—Proposed Action

The power line replacement projects proposed by SDG&E would replace five existing 69 kV power lines totaling approximately 114.8 miles and six existing 12 kV distribution lines totaling approximately 31.1 miles both on and off CNF lands. Replacement would primarily include fire hardening (wood-to-steel pole replacement), relocation, and undergrounding. The project would also result in an increase in the size of the existing conductors, which could accommodate for an increase in power conducted along the lines. However, no increase in power is planned for and

no substations within the project area would be modified as part of SDG&E’s proposed project to accommodate for any increases in power along the new lines.

Once energized, the replacement power lines would generate EMFs, as do the existing current power lines. SDG&E’s Detailed Field Management Plan (SDG&E 2012) for the subject project, prepared in compliance with CPUC General Order 131-D (CPUC 1995) and CPUC decisions 93-11-013 (CPUC 1993) and 06-01-042 (CPUC 2006a), provides the edge-of ROW magnetic field profiles which include design measures to reduce magnetic fields. Tables D.15-3 and D.15-4 show the initial design and recommended (“low-cost”) design magnetic field values (milligauss) and the percent change for increasing minimum sag height in residential zoned areas within SDG&E’s proposed project scope, and for phasing circuits to reduce magnetic fields. The magnetic field values were calculated at the edges-of-ROWS or edge-of-easement for all transmission lines.

**Table D.15-3
Increasing Sag Height within 12 Foot-Wide to 100-Foot-Wide Easements**

Single Circuit 69 kV Increase Sag Height for Field Reduction								
MIN SAG HEIGHT		Milligauss Values at Edge-of-Easement				(%) Milligauss Reduction		
		30	33	34	37	33	34	37
Easement Width	12 feet	6.23	5.20	4.91	3.74	16.5%	21.2%	40.0%
	20 feet	5.93	4.99	4.72	3.63	15.9%	20.4%	38.8%
	30 feet	5.37	4.59	4.36	3.42	14.5%	18.8%	36.3%
	50 feet	4.07	3.60	3.46	2.85	11.5%	15.0%	30.0%
	100 feet	1.86	1.76	1.72	1.57	5.4%	7.5%	15.6%

Source: SDG&E 2012.

**Table D.15-4
Phasing Circuits to Reduce Magnetic Fields**

Double Circuit 69 kV Phase Circuits to Reduce Magnetic Fields									
	TL625–TL6957 (50 feet Easement)			TL626B–TL637 (30 feet Easement)			TL629–TL6958 (30feet Easement)		
	ABC-ABC	ABC-CBA	% Milligauss Reduction	ABC-CBA	ABC-ABC	% Milligauss Reduction	BCA-BCA	BCA-ACB	% Milligauss Reduction
Left ROW	7.59	2.13	71.9%	11.38	3.46	69.6%	9.58	3.09	67.7%
Right ROW	7.59	2.13	71.9%	11.92	4.96	58.4%	9.58	3.09	67.7%

Source: SDGE 2012.

D.15.5 Summary Regarding EMF

After several decades of study regarding potential public health risks from exposure to power

line EMF, research results remain inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to conclude that EMF causes cancer or other adverse health effects. The information included in the preceding sections identifies existing EMF exposures within the community and provide specific information on the EMF levels estimated for SDG&E's proposed project. Presently, there are no applicable regulations related to EMF levels from power lines. However, the CPUC has implemented a decision requiring utilities to incorporate "low cost" or "no cost" measures for managing EMF from power lines. SDG&E's proposed project incorporates low cost and no cost measures as described in Section D.15.4 as mitigation for magnetic fields consistent with CPUC Decision D.93-11-013 (see SDG&E, 2012, "Appendix F: Detailed Magnetic Field Management Plan for the Cleveland National Forest (CNF) Power line Replacement Projects." October 11, 2012).

D.15.6 References

- CPUC (California Public Utilities Commission). 1993. "Order Instituting Investigation on the Commission's Own Motion to Develop Policies and Procedures for Addressing the Potential Health Effects of Electric and Magnetic Fields of Utility Facilities." Decision No. 93-11-013, Investigation No. 91-01-012. November 2, 1993.
- CPUC. 1995. "Rules Relating to the Planning and Construction of Electric Generation, Transmission/Power/Distribution Line Facilities and Substations Located in California." General Order no. 131-D. Effective September 10, 1995 (Decision 95-08-038). Accessed May 10, 2011. <http://www.cpuc.ca.gov/PUC/energy/Environment/>.
- CPUC. 2006a. "Opinion on Commission Policies Addressing Electromagnetic Fields Emanating from Regulated Utility Facilities." Decision 06-01-042. January 26, 2006. http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/53181.pdf.
- CPUC. 2006b. *EMF Design Guidelines for Electrical Facilities*. July 21, 2006. <ftp://ftp.cpuc.ca.gov/puc/energy/environment/electromagnetic+fields/california+guidelines+for+electrical+facilities+072106+published.pdf>.
- Gauger, J.R. 1985. "Household Appliance Magnetic Field Survey." Institute of Electrical and Electronics Engineers (IEEE), Vol. PAS-104, No. 9:2436-44.
- Neutra, R.R., V. Delpizzo, and G.M. Lee. 2002. "An Evaluation of the Possible Risks from Electric and Magnetic Fields (EMFs) from Power Lines, Internal Wiring, Electrical Occupations and Appliances." Oakland, California: California EMF Program, California Department of Health Services.

- SDG&E (San Diego Gas & Electric). 2006. "EMF Design Guidelines for Electrical Facilities." July 21, 2006.
- SDG&E. 2012. "Appendix F: Detailed Magnetic Field Management Plan for the Cleveland National Forest (CNF) Powerline Replacement Projects." October 11, 2012. In *Application of San Diego Gas & Electric Company (U902 E) for a Permit to Construct the Cleveland National Forest Power Line Replacement Projects (Volume I of II.)* October 17, 2012.
- Severson, R.K., R.G. Stevens, W.T. Kaune, D.B. Thomas, L. Heuser, S. Davis, and L.E. Sever. 1988. "Acute Nonlymphocytic Leukemia and Residential Exposure to Power Frequency Magnetic Fields." *American Journal of Epidemiology* 128 (1):10–20.
- Silva, M., N.P. Hummon, D. Rutter, C. Hooper. 1988. "Power Frequency Magnetic Fields in the Home." Institute of Electrical and Electronics Engineers, No. 88 WM 101-8.
- Wertheimer N. and E. Leeper. 1979. "Electrical Wiring Configurations and Childhood Cancer." *American Journal of Epidemiology* 109:273–84.

INTENTIONALLY LEFT BLANK

E. COMPARISON OF ALTERNATIVES

This section presents a summary of the impact findings previously presented in the environmental analysis in Section D of this Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The information is organized by alternative rather than by environmental resource category in order to facilitate an evaluation of the comparative merits of SDG&E's proposed project, the alternatives considered under the federal proposed action, and the additional alternatives evaluated in this EIR/EIS. This comparison is based on the assessment of environmental impacts identified in Section D.

This section is organized as follows:

- Section E.1 describes the regulatory requirements for the alternatives comparison.
- Sections E.2 through E.4 compare the alternatives using the CEQA format. E.2 presents a comparison of the proposed project with the federal proposed action and includes the No Action Alternative.
- Section E.3 presents a comparison of the proposed project with additional alternatives considered and includes the No Project Alternative.
- Section E.4 defines the overall environmentally superior alternative under the California Environmental Quality Act (CEQA).
- Section E.5 presents a comparative analysis of the alternatives as required by the National Environmental Policy Act (NEPA) regulations.
- Section E.6 defines the preferred alternative for the federal agencies as required under NEPA regulations.
- Section E.7 defines the environmentally preferable alternative that will promote the national environmental policy as expressed in NEPA's Section 101.

E.1 Regulatory Requirements for Alternatives Comparison

E.1.1 California Environmental Quality Act

Under CEQA, the alternatives analysis is required to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed. If the environmentally superior

alternative is the No Project Alternative, CEQA requires identification of an environmentally superior alternative among the other alternatives (14 CCR 15126.6(e)(2)).

The comparison of alternatives is designed to satisfy the requirements of CEQA Guidelines, Section 15126.6(d), Evaluation of Alternatives (14 CCR 15000 et seq.). This comparison focuses on the significant adverse impacts of the proposed project as compared to the alternatives rather than on the beneficial impacts of any alternative above and beyond its ability to reduce or avoid significant effects of the proposed project. This is consistent with the constitutional requirement that there be “rough proportionality” between the impacts of the project and the measures identified to reduce or avoid those impacts (*Dolan v. City of Tigard*, 512 U.S. 374 (1994)), and the constitutional requirement that there be an essential nexus (i.e., connection) between a legitimate governmental interest and the measures identified to further that interest (*Nollan v. California Coastal Commission*, 483 U.S. 825 (1987)). These requirements are also set forth in CEQA Guidelines, Section 15126.4(a)(4).

Therefore, the environmental superiority of alternatives under CEQA is based on a comparison of significant impacts that would result from the proposed project and the alternatives identified in this EIR/EIS. Issue areas that are generally given more weight in comparing alternatives are those with long-term impacts (e.g., visual impacts and permanent loss of habitat or land use conflicts). Impacts associated with construction (i.e., temporary or short-term) that are mitigable to less-than-significant levels are considered less important. In keeping with the constitutional requirements discussed previously, the environmental superiority of alternatives does not consider whether the proposed project or an alternative would improve existing environmental conditions. These benefits, summarized in this section and in Sections D.2 through D.14 in this EIR/EIS, will be considered by the California Public Utilities Commission (CPUC) in its final decision about whether to approve the project as proposed or an alternative.

E.1.2 National Environmental Policy Act

Under Council on Environmental Quality regulations implementing NEPA, an EIS must present the environmental impacts of the proposal and the alternatives in comparative form, sharply defining the issues and providing a clear basis of choice among options (40 C.F.R. 1502.14). The regulations direct that an EIS “identify the agency’s preferred alternative or alternatives, if one exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference” (40 CFR 1502.14(e)).

The “agency’s preferred alternative” is the alternative which the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. The concept of the “agency’s preferred alternative” is different from the “environmentally preferable alternative,” although in some cases one alternative may be

both. It is identified so that agencies and the public can understand the lead agency's orientation (see CEQ 40 Most Asked Questions, Question 4a). The identification of a preferred alternative may take into consideration whether the proposed project or an alternative would improve existing environmental conditions and does not constitute a commitment or decision principle, and there is no requirement to select the preferred alternative in the Record of Decision. The identification of the preferred alternative may change between a draft EIS and final EIS. Various parts of separate alternatives that are analyzed in the draft can also be combined to develop a complete alternative in the final EIS as long as the reasons for doing so are explained.

Under the NEPA regulations, the Record of Decision must identify the environmentally preferred alternative. The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. Although not required, agencies are encouraged to identify the environmentally preferred alternative in the EIS (see CEQ 40 Most Asked Questions 6b).

E.2 CEQA Comparison of the Proposed Project with the Federal Proposed Action and the No Action Alternative

E.2.1 Description of Alternatives Considered under the Federal Proposed Action

In addition to the No Action Alternative, this EIR/EIS evaluates the Forest Service proposed action, which modifies SDG&E's proposed project along TL626, C157, and C440, and the BIA proposed action, which modifies SDG&E's proposed project along TL682, as described in Section B.3.2 and summarized below.

E.2.1.1 TL626 Alternative Routes

The Forest Service proposed action considers the following five options for relocating certain segments of TL626. All other project components would remain the same under these alternatives.

Option 1: SDG&E Proposed Overhead Alignment through Inaja and Cosmit Reservation Lands

As shown in Figure B-4a, Option 1 reroutes a portion of TL626 to the east on the Inaja and Cosmit Reservation Lands and would develop over 5.5 miles of new overhead electric utility right-of-way (ROW) and extend TL626 to approximately 20.6 miles in length compared to the reconstruction of 18.8 miles of the existing TL626 in place as proposed. Approximately 3.7 miles of the existing alignment and associated access roads would be restored.

Option 2: SDG&E Proposed Overhead Alignment around Inaja and Cosmit Reservation Lands

As shown in Figure B-4a, Option 2 reroutes a portion of TL626 to the east and around the Inaja and Cosmit Reservation Lands and would develop over 5.6 miles of new overhead electric utility ROW and extend TL626 to approximately 20.7 miles in length compared to the reconstruction of 18.8 miles of the existing TL626 in place as proposed. Approximately 3.7 miles of the existing alignment and associated access roads would be restored.

Option 3: Partial Underground Relocation in Boulder Creek Road

Options 3a and 3b would consist of placing a segment of TL626 underground in Boulder Creek Road as shown in Figure B-4b. Depending on the option, TL626 would be extended to 26.3 miles (Option 3a which undergrounds 11.4 miles and includes 1 mile of new overhead ROW) or 22.9 miles (Option 3b which undergrounds 6.3 miles and includes 1 mile of new overhead ROW) in length compared to the reconstruction of 18.8 miles of the existing TL626 in place as proposed. Approximately 4.9 miles and 3.2 miles for Options 3a and 3b, respectively, of the existing alignment and associated access roads would be restored.

Option 4: Overhead Relocation along Boulder Creek Road

Option 4 would consist of relocating a 7.5-mile segment of TL626 overhead along Boulder Creek Road to Pine Hills Fire Station where it would connect to Options 1 and 2 described above and continue overland for approximately 2.1 miles. As shown in Figure B-4a, the rerouted segment of Option 4 would develop approximately 9.6 miles of new overhead ROW and extend TL626 to 23.5 miles compared to the reconstruction of 18.8 miles of the existing TL626 in place as proposed. Approximately 4.9 miles of the existing alignment and associated access roads would be restored.

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Option 5 would consist of relocating a portion of TL626 around the Inaja Memorial Picnic Area and as shown in Figure B-4c, would consist of approximately 2,100 feet of relocated overhead alignment along with a 400-foot underground segment located within an existing parking lot. The existing crossing and access road would be restored.

E.2.1.2 C157 Partial Relocation to Avoid Designated Wilderness

The Forest Service proposed action considers the following two options for relocating a segment of C157 to avoid designated wilderness areas. All other project components would remain the same under these alternatives.

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

Option 1 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5) extending C157 to 4.1 miles in length compared to the reconstruction of 3.5 miles of the existing C157 as proposed.

Option 2: City of San Diego Modified Alignment

Option 2 would reroute an approximately 2-mile segment of C157 to the south of the existing alignment approximately 0.25 mile along new undisturbed ROW (Figure B-5a). However, under Option 2, the segment of the line on City-owned property would be shifted to the north as shown in Figure B-5a. This option would extend C157 to 4.1 miles in length compared to the reconstruction of 3.5 miles of the existing C157 as proposed.

E.2.1.3 C440 Mount Laguna Underground Alternative

Besides undergrounding C440 as proposed by the project, this alternative includes undergrounding an additional 14.3 miles of C440 primarily within existing roadways in the Mount Laguna Recreation Area. All other project components would remain the same under this alternative.

E.2.1.4 BIA Proposed Action

This alternative would modify TL682 on Tribal lands by undergrounding a 1,500-foot segment of TL682 through the economic development zone located on the La Jolla Reservation along with relocation of certain poles.

E.2.1.5 No Action Alternative

Under the No Action Alternative, the Forest Service would not issue a Master Special Use Permit (MSUP) and San Diego Gas & Electric's (SDG&E's) existing permits to operate and maintain the electric system on National Forest Land would expire. The existing permits require SDG&E to remove the facilities upon expiration.

E.2.2 Comparison of Impacts for the Proposed Project with Federal Proposed Actions and No Action Alternative

A detailed analysis of environmental impacts and mitigation for all project alternatives is provided in Sections D.2 through D.14. A comparison of the environmental effects for the proposed project and the federal proposed action, including the No Action Alternative, is provided in Table E-1. Also see Section E.2.3, Overall Ranking of the Federal Proposed Action, Including the No Action Alternative.

E.2.3 Overall Ranking of the Federal Proposed Action, Including the No Action Alternative

As summarized in Table E-1, SDG&E's proposed project would have significant and unavoidable (Class I) impacts under CEQA in the following issue areas:

- Impact VIS-1: Scenic Vista impact associated with TL626 and the Inaja Scenic Overlook
- Impact AIR-1: short-term construction air emissions (NO_x and PM₁₀ emissions)
- Impact HYD-4: erosion/water quality impacts associated with reauthorizing the use of exclusive use access roads with slopes greater than 25% in close proximity to surface waters.
- Impact LU-3: land use conflicts associated with C157 and the provisions of the Wilderness Act.

Impacts in the remaining 10 issue areas were either found under CEQA to be less than significant (Class III) and/or, following implementation of mitigation measures presented in this EIR/EIS, to be less than significant with mitigation implemented (Class II).

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	TL626 Alternative Routes	C157 Partial Relocation	BIA Proposed Action	C440 Mount Laguna Undergrounding	No Action Alternative
<i>Visual Resources (see Section D.2 for full analysis)</i>					
<p>VIS-1: Scenic Vista (Class I TL626 (Inaja Scenic Overlook). All others III)</p> <p>VIS-2: Scenic Highway (Class II C440 and all others III)</p> <p>VIS-3: Visual Character (Class II limited poles only and all others III)</p> <p>VIS-4: Glare/Light (Class III)</p> <p>VIS-5: Scenic Integrity (Class II certain poles TL625, TL626, TL629, TL682, C440, C157 and all others III)</p>	<p>[=] Options 1 through 4: Similar to the proposed project, would have Class I impact from Inaja Scenic Overlook (VIS-1); Class III impacts to VIS-2 and VIS-4 and Class II impacts to VIS-5.</p> <p>[+] Development of new overhead ROW where none currently exists would increase Impact VIS-3 Class II and III impacts to significant and unmitigable Class I. However, long-term views under Option 3 where relocation and undergrounding would occur would benefit the viewsheds by removing existing structures and placing them underground.</p> <p>[=] Option 5:</p>	<p>[=] Options 1 and 2: Impacts would be nearly identical to those of the proposed project. Would reduce Impact VIS-5 Class II impacts associated with C157; however, impact levels would be similar to those identified for the proposed project.</p>	<p>[=] Although undergrounding a portion of the transmission line would reduce and avoid some of the visual impacts, the overall impact levels would be similar to those identified for the proposed project.</p>	<p>[=] While undergrounding a portion of the transmission line would reduce and avoid some of the visual impacts, the overall impact levels would be similar to those identified for the proposed project.</p>	<p>[+] Although removing the electric lines from the National Forest would reduce and avoid some of the visual impacts, the overall impact levels would be greater when compared to the baseline due to the need to replace these lines in-kind within new ROWs outside the National Forest compared to reconstruction of the lines in place as proposed.</p>

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
	Would reduce Impact VIS-1 Class I impact associated with Inaja scenic Overlook to No Impact without creating additional impacts.				
<i>Air Quality (see Section D.3 for full analysis) and Greenhouse Gas Emissions (see Section D.6 for full analysis)</i>					
AIR-1: Short-term construction-related NO _x and PM ₁₀ air emissions (Class I). Other short-term air quality impacts would be (Class III). AIR-2: Long-term impacts would be (Class III). AIR-3: General Conformity (federal) – not adverse AIR-4: Conflict with Land Use Plans (No Impact) AIR-5: Expose Sensitive Receptors	[=] Options 1 through 5: Although air emissions would be greater due to the increased disturbance area, the overall impact findings would be similar to those identified for the proposed project.	[=] Options 1 and 2: Although air emissions would be greater due to the increased disturbance area, the overall impact findings would be similar to those identified for the proposed project.	[=] Although air emissions would be greater due to the increased disturbance area, the overall impact findings would be similar to those identified for the proposed project.	[=] Although air emissions would be greater due to the increased disturbance area, the overall impact findings would be similar to those identified for the proposed project.	[+] While removing the electric lines from the National Forest would avoid some of the construction-related emissions and associated impacts, the overall air emissions and associated impacts would increase under this alternative due to the need to conduct restoration activities along with the replacement of these lines in-kind outside the National Forest compared to reconstruction of the lines in place as proposed.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
(Class III) GHG-1 through GHG-3: Result in GHG during construction and operations or Conflict with Applicable Plan (Class III)					
<i>Biological Resources (see Section D.4 for full analysis)</i>					
BIO-1: Vegetation Loss (Class II) BIO-2: Loss of Preserve Areas (Class II) BIO-3: Native Wildlife (Class III) BIO-4: Jurisdictional Resources (Class II) BIO-5: Invasive Species (Class II) BIO-6: Sensitive Species (Class II) BIO-7: Conflict with	[=] Options 1 through 5: Although removing TL626 from the Cedar Creek area would reduce some of the biological resource impacts, the overall impacts to biological resources would be greater due to increased ground disturbance required during construction when compared to the proposed project. However, with mitigation identified for the proposed project, the overall impact findings would be similar to those identified for the	[+] Options 1 and 2: Would create additional significant and adverse impacts to U.S. Fish and Wildlife Service (USFWS)-designated arroyo toad critical habitat (Impact BIO-6) requiring additional mitigation beyond that required for the project. Option 1 would also create additional significant effects under Impact BIO-7 due to conflicts with the City of San Diego conservation lands. Option 2 would avoid this impact.	[=] Although impacts to biological resources would be greater due to the increased disturbance area, the overall impact findings with mitigation identified for the proposed project would be similar to those identified for the proposed project.	[=] Although impacts to biological resources would be greater due to the increased disturbance area, the overall impact findings with mitigation identified for the proposed project would be similar to those identified for the proposed project.	[+] While removing the electric lines from the National Forest would avoid some of the biological resources impacts, the overall impacts to biological resources would increase under this alternative when compared to the baseline condition due to the anticipated increase in disturbance area required for restoration and replacement of these lines in-kind outside the National Forest compared to reconstruction of the lines in place as proposed.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
Adopted Plans (Class III) BIO-8: Interfere with wildlife movement/corridors (Class III)	proposed project.				
<i>Cultural and Paleontological Resources (see Section D.5 for full analysis)</i>					
CUL-1: Historical Resources (Class II) CUL-2: Archaeological Resources (Class II) CUL-3: Human Remains (Class III) CUL-4: TCP (Class III) PALEO-1: Unique Paleontological Resource or Geologic Feature (Class III)	[=] Options 1 through 5: While the overall impacts to cultural resources would be greater due to increased ground disturbance required during construction when compared to the proposed project, with mitigation identified for the proposed project, the overall impact findings for CUL-1, 2, 3 and Paleo 1 would be similar to those identified for the proposed project. [+] Impact CUL-4 under Options 1, 2, 4, and 5 would increase from	[=] Options 1 and 2: Impacts would be similar to the proposed project.	[=] Impacts would be similar to the proposed project.	[=] While overall impacts to cultural resources would increase under this alternative due to open trenching and associated increased area of disturbance, with mitigation identified for the proposed project, the overall impact findings would be similar to those identified for the proposed project.	[+] While removing the electric lines from the National Forest would avoid some of the archaeological impacts, the overall impacts to cultural resources would increase under this alternative due to the increased disturbance area required for restoration and replacement of these lines in-kind outside the National Forest compared to reconstruction of the lines in place as proposed.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E's Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
	Class III to Class II				
<i>Public Health and Safety (see Section D.7 for full analysis)</i>					
PHS-1 through PHS-3: Hazardous Materials Impacts During Construction (Class II) PHS-4: Flight Operations/Aviation Hazards (Class II) PHS-5: Emergency Response (Class III) PHS-6: Structural Failure (Class II) PHS-7: Shock Hazards (Class III)	<p>[+] Options 1, 2, 4, and 5: Would create additional significant and adverse impacts to aviation hazards (Impact PHS-4) requiring additional mitigation beyond that required for the project.</p> <p>[=] Option 3: While PHS-1 through PHS-3 and PHS-5 impacts would be greater due to trenching for underground installation, they would remain less than significant with mitigation identified for the project.</p> <p>[-] Option 3 Impact PHS-4, PHS-6 and PHS-7 impacts would be reduced under Option 3 where the</p>	<p>[=] Options 1 and 2: Adverse mitigable impacts (Class II) would be similar to the proposed project.</p>	<p>[=] Adverse mitigable impacts (Class II) would be similar to the proposed project.</p>	<p>[-] While short-term PHS-1 and 2 impacts would be greater than the proposed project due to trenching for underground installation, these impacts would remain less than significant with mitigation. PHS-6 impacts would be reduced where the transmission line is undergrounded.</p>	<p>[=] While removing the electric lines from the National Forest would avoid some of the public health and safety impacts, the overall impacts would be similar under this alternative due to the need to replace these lines in-kind outside the National Forest compared to reconstruction of the lines in place as proposed.</p>

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
	transmission line is undergrounded.				
<i>Fire and Fuels Management (see Section D.8 for full analysis)</i>					
FF-1: Construction, Operation and Maintenance Could Start a Wildfire (Class II) FF-2: Presence of Transmission Lines Could Start a Fire (Class III) FF-3: Reduced Firefighter Effectiveness (Class III) FF-4: Introduction of Non-native Plants (Class II)	<u>[+] Options 1, 2, 4, and 5:</u> Impact findings would be similar to the proposed project for Impacts FF-1 and FF-2. Would create additional significant and adverse impacts to aviation safety and therefore Impact FF-3 would require additional mitigation beyond that required for the project. <u>[+] Option 3:</u> Impacts FF-2 and FF-3 would be reduced under Option 3 where the transmission line is undergrounded to no impact.	<u>[=] Options 1 and 2:</u> Impact findings would be similar to the proposed project.	<u>[=]</u> Impact findings would be similar to the proposed project.	<u>[-]</u> Impacts FF-2 and FF-3 would be reduced to no impact where the transmission line is undergrounded, other impacts would be similar.	<u>[=]</u> Impacts would be similar to the proposed project.
<i>Hydrology and Water Quality (see Section D.9 for full analysis)</i>					
HYD-1 and HYD-2: Short-Term Construction Activities Would Degrade Water	<u>[-] Options 1, 2, 4, and 5:</u> Impact findings for HYD-1, HYD-2, and HYD-3 would be similar	<u>[=] Options 1 and 2:</u> Impact findings would be similar to the proposed project.	<u>[=]</u> Impact findings would be similar to the proposed project.	<u>[=]</u> While HYD-1 and 2 impacts would increase due to trenching activities, impact findings would remain Class	<u>[=]</u> While removing the electric lines from the National Forest would avoid HYD-4 Class I impacts

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
Resources (Class II) HYD-3: Groundwater Supply (Class II) HYD-4: Access Roads (Class I and II) HYD-5: Maintenance - Vegetation Management, Pesticide, and Herbicide Application (Class II)	to the proposed project. Options 1, 2, and 4 would reduce Class I HYD-4 impacts associated with access to TL626 to less than significant (Class II) - Option 5 would remain Class I. [+] Option 3: While Option 3 would reduce Class I HYD-4 impacts associated with access to TL626, it would create additional significant and adverse impacts due to crossing numerous surface hydrological features (Impacts HYD-1 and HYD-2) and therefore require additional mitigation beyond that identified for the project.			II and similar to the proposed project. HYD-3 would be similar to the proposed project. HYD-4 and 5 would be reduced from Class II to no impact.	associated with access roads, other impacts to hydrology and water quality would be similar to the proposed project due to the need to replace the existing lines in-kind outside the National Forest.
<i>Land Use (see Section D.10 for full analysis)</i>					
LU-1: Temporary Disturbance Due to Construction (Class II) LU-2: Divide an	[+] Options 1 and 2 : Would not avoid all Impact LU-3 Class II impacts associated with TL626. Other impact	[=] Options 1 and 2 : Would reduce Impact LU-3 Class I impacts associated with C157 to no impact. All other impacts would be nearly identical to	[=] Impacts would be nearly identical to those of the proposed project; temporary impacts would be slightly greater due to	[=] While LU-1 impacts would increase due to increased disturbance, with mitigation identified for the project, the impact finding	[+] Removing the electric lines from the National Forest would avoid LU-3 Class I impacts associated with TL626 and C157. All other

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
<p>Established Community (No Impact)</p> <p>LU- 3: Conflict with Applicable Land Use Plan: (C157 Class I), and TL626 and C442 (Class II) (all others Class III)</p>	<p>findings (no impact, Class II, and Class III) would be greater due to development of new 5-mile (Options 1 and 2) ROW when compared to the reconstruction of TL626 in place.</p> <p>[-] Option 3 and 4: Would increase temporary impacts due to increased disturbance. Would reduce long-term impact LU-3 Class II impacts associated with TL626.</p> <p>[+] Option 4: While Option 4 would reduce Class II LU-3 impacts associated with TL626 Other impact findings (No Impact, Class II, and Class III) would be greater due to development of new 9-mile ROW when compared to the</p>	<p>those of the proposed project with the exception of Option 1, which would conflict with City of San Diego policies.</p>	<p>the greater disturbance area required.</p>	<p>would be similar to the proposed project.</p>	<p>land use impacts would be similar or greater to those identified for the proposed project due to the need to replace these lines in-kind outside the National Forest compared to reconstruction of the lines in place as proposed.</p>

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
	reconstruction of TL626 in place. [=] Option 5: Impact findings would be similar to the proposed project.				
<i>Noise (see Section D.11 for full analysis)</i>					
NOI-1 and NOI-2: Construction Noise (Class II) NOI-3 and NOI-4: Corona Noise/Long-Term Impacts (Class III).	[=] Options 1 through 5: While construction-related impacts would be greater due to increased ground disturbance required during construction when compared to the proposed project, with mitigation identified for the proposed project, the overall impact findings would be similar to those identified for the proposed project. Operations noise impacts would be marginally reduced under Option 3 where	[=] Options 1 and 2: Noise impact findings would be similar to the proposed project.	[=] Noise impact findings would be similar to the proposed project.	[=] While construction-related impacts would be greater due to increased ground disturbance required during construction when compared to the proposed project, with mitigation identified for the proposed project, the overall impact findings would be similar to those identified for the proposed project. Operations noise impacts would be marginally reduced where the transmission line is undergrounded.	[+] While removing the electric lines from the National Forest would avoid some of the noise impacts, the overall impacts due to project-related noise would increase under this alternative due to the increased construction /disturbance area needed for restoration as well as for replacement of these lines in-kind outside the National Forest, compared to reconstruction of the lines in place as proposed.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
	the transmission line is undergrounded, but would increase under Options 1, 2, and 4 due to the new and longer ROW affected.				
<i>Public Services and Utilities (see Section D.12 for full analysis)</i>					
PSU-1: Effects on facilities relating to the provision of Fire Protection, Water Supply, and Telecommunications - (Class II). PSU-2: and PSU-3: Solid Waste Disposal Facilities and Disruption of Electrical Service (Class III).	<u>[=] Options 1 through 5:</u> Impact findings would be similar to the proposed project.	<u>[=] Options 1 and 2:</u> Impact findings would be similar to the proposed project.	<u>[=]</u> Impact findings would be similar to the proposed project.	<u>[=]</u> While impacts caused by possible disruptions would increase where the transmission line is undergrounded, impact findings would be similar to the proposed project.	<u>[=]</u> Impacts would be similar to the proposed project.
<i>Recreation (see Section D.13 for full analysis)</i>					
REC-1: Reduce Access During Construction - Temporary construction impacts to access to recreation and wilderness areas would be adverse but mitigable (Class II -	<u>[=] Options 1 through 5:</u> Impact findings would be similar to those of the proposed project.	<u>[=] Options 1 and 2:</u> Impact findings would be similar to those of the proposed project.	<u>[=]</u> Impact findings would be similar to those of the proposed project.	<u>[=]</u> While construction-related impacts REC-1 and REC-2 would be greater due to increased ground disturbance required during construction when compared to the proposed project, with mitigation identified for the proposed project, the overall	<u>[=]</u> While removing the electric lines from the National Forest would avoid some of the recreation impacts, the overall impacts to recreation would be similar or greater to those identified for the proposed project due to the need to replace these

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions**

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
<p>TL682, TL626, TL625, TL629, TL6923, C79, and C157; all others are Class III).</p> <p>REC-2: Project Components Reduce Access to Recreation Areas (Class III)</p> <p>REC-3: Unauthorized Access (Class II)</p>				<p>impact findings would be similar to those identified for the proposed project.</p>	<p>lines in-kind outside the National Forest compared to reconstruction of the lines in place as proposed.</p>
<i>Transportation and Traffic (see Section D.14 for full analysis)</i>					
<p>TRANS-1 through TRANS-5: Short-term construction activities would cause Class III impacts to traffic and roadways.</p>	<p>[=] <u>Options 1, 2, 4, and 5:</u> Impact findings would be similar to those of the proposed project.</p> <p><u>Option 3:</u> While construction-related impacts would be greater due to trenching within Boulder Creek Road when compared to the proposed project, with APMs and mitigation identified for the proposed project,</p>	<p>[=] <u>Options 1 and 2:</u> Class III impacts would be similar to the proposed project.</p>	<p>[=] Class III impacts would be similar to the proposed project.</p>	<p>[=] While construction-related impacts would be greater due to increased ground disturbance within existing roadways during construction, with APMs and mitigation identified for the proposed project, the overall impact findings would be similar to those identified for the proposed project.</p>	<p>[=] Class III impacts would be similar to the proposed project.</p>

Table E-1
Comparison of Impacts for SDG&E’s Proposed Project with Federal Proposed Actions

Proposed Project Impact	Federal Proposed Actions				
	<i>TL626 Alternative Routes</i>	<i>C157 Partial Relocation</i>	<i>BIA Proposed Action</i>	<i>C440 Mount Laguna Undergrounding</i>	<i>No Action Alternative</i>
	the overall impact findings would be similar to those identified for the proposed project.				

Note: The plus (+), minus (-), and equal (=) signs noted in Table E-1 generally indicate whether the alternative increases, reduces, or would have similar impact level classifications, as defined in Section D.1 of this EIR/EIS, when compared to the proposed project. For example, while undergrounding a portion of a transmission line would reduce and avoid some of the visual impacts, the overall impact findings (i.e., determination that the impact is not adverse under NEPA and less than significant under CEQA (Class III)) may be equal (=) to those identified for the proposed project. In areas where the alternative would change the requirement for mitigation and/or impact classification finding, a plus (+) or minus (-) sign is given.

E.2.3.1 TL626 Alternative Routes

Options 1 and 2: SDG&E Proposed Overhead Alignments Through/Around Inaja and Cosmit Reservation Lands

Option 1 and 2 would relocate a portion of TL626 out of the Cedar Creek riparian area, which would reduce significant and unavoidable (Class I) impacts under CEQA due to erosion and water quality impacts in the Cedar Creek riparian area (Impact HYD-4). These impacts would be reduced to less than significant with mitigation under CEQA (Class II).

While relocating a segment of TL626 as proposed under Options 1 and 2 would avoid Class II conflicts with resource management standards identified in the Forest Service's Land Management Plan (LMP) for the Cedar Creek riparian area (Impact LU-3), these options, as summarized below and in Table E-1, would create additional impacts when compared to replacing TL626 in place as proposed due to the increased area of disturbance required along with the establishment of a new overhead ROW where none currently exists. Options 1 and 2 would extend TL626 to approximately 20.6 and 20.7 miles in length compared to the reconstruction of 18.8 miles of the existing TL626 in place as proposed and would develop over 5 miles of new overhead electric utility ROW in an undeveloped and undisturbed ROW. As summarized in Table E-1, when compared to the reconstruction of the existing TL626 in place as proposed by SDG&E, Options 1 and 2 would result in the following additional significant effects beyond those that would be caused by SDG&E's proposed project:

- Impact VIS-3 (visual character). As a result of placing new poles and power lines in an area where none currently exist, Impact VIS-3 would change from less than significant under CEQA (Class III) to significant and unavoidable (Class I) under CEQA. Mitigation Measure MM VIS-1 has been provided to minimize the visual prominence and contrast. However, due to the height of poles, open visibility of the new overhead ROW under Options 1 and 2, and proximity of residences, there are no effective screening methods available to reduce the significant visual contrast of the introduction of a new overhead 69-kilovolt (kV) transmission line ROW where none currently exists.
- Impact CUL-4 (traditional cultural properties). As a result of placing new poles and power lines in an area where none currently exist, Impact CUL-4 would change from less than significant under CEQA (Class III) to less than significant with mitigation (Class II).
- Impact PH-4 (aviation hazards). As a result of placing new poles and power lines in an area where none currently exist, Impact PH-4 would require additional mitigation and therefore change from less than significant (Class III) to less than significant with mitigation under CEQA (Class II).

- Impact FF-3 (reduced firefighter effectiveness). As a result of placing new poles and power lines in an area where none currently exist, Impact FF-3 would require additional mitigation and therefore would change from less than significant to less than significant with mitigation under CEQA (Class II).
- Impact LU-2 (divide an established community). Due to placement of new overhead ROW where none currently exists on the periphery of the community of Pine Hills, Impact LU-2 would require additional mitigation and therefore change from less than significant (Class III) to less than significant with mitigation under CEQA (Class II).

Option 3: Partial Underground Relocation in Boulder Creek Road

Option 3 would relocate a portion of TL626 out of the Cedar Creek riparian area, which would reduce significant and unavoidable (Class I) impacts under CEQA due to erosion and water quality impacts in the Cedar Creek riparian area (Impact HYD-4). Relocating a segment of TL626 as proposed under Option 3 would also avoid Class II impacts associated with conflicts with resource management standards identified in the Forest Service's LMP for the Cedar Creek riparian area (Impact LU-3) and would also reduce long-term impacts due to extreme weather and fire hazards (Impacts PHS-1 through PHS-3). These long-term impacts would be reduced from less than significant with mitigation under CEQA (Class II) to less than significant under CEQA (Class III). This alternative would also remove the access road through Cedar Creek Gorge thereby reducing the Class II impacts associated with unauthorized access in this area of TL626 (Impact REC-3).

Option 3 would extend TL626 from 18.8 miles in length to approximately 26.3 (Option 3a) or to 22.9 (Option 3b) miles in length depending on the selected option compared to the reconstruction of 18.8 miles of the existing TL626 in place as proposed and would increase short-term construction impacts associated with trenching and boring activities over a 11.4-mile (Option 3a) to 6.3-mile (Option 3b) segment along with a new 1-mile overhead segment, which would increase the disturbance area when compared to the reconstruction of the existing TL626 in place as proposed. Because undergrounding within Boulder Creek Road would create a substantially larger disturbance area and would cross more hydrological features compared to reconstruction of TL626 in place as proposed by SDG&E, a substantial increase in water quality impacts would occur during short-term construction activities due to additional runoff, sedimentation, or erosion. Due to the number of creek crossings, impacts from installation of the underground electric line would be considered significant and would require additional mitigation beyond that identified for the proposed project. As summarized in Table E-1, when compared to the reconstruction of the existing TL626 in place as proposed by SDG&E, Option 3 would result in the following additional significant effects beyond those that would be caused by SDG&E's proposed project:

- Impacts VIS-3 (character) and VIS-5 (scenic integrity). The 1-mile overland component in undisturbed ROW would generally create noticeable contrast in form, line, color, and texture when viewed alongside existing natural elements in the landscape (e.g., trees, shrubs) and therefore would create an adverse impact to the existing visual character (Impact VIS-3) and scenic integrity (VIS-5). Mitigation Measure MM VIS-1 has been provided to minimize the visual prominence and contrast. However, due to the height of poles and establishment of a new overhead line across a sparsely developed landscape, Impacts VIS-3 and VIS-5 would be significant and unmitigable (Class I) as there are no effective screening methods available to reduce the significant visual contrast of the introduction of a new overhead 69-kilovolt (kV) transmission line ROW where none currently exists.
- Impacts HYD-1 and HYD-2 (short-term construction activities could degrade water resources). This alternative would require additional mitigation beyond that identified for the proposed project because undergrounding during construction within Boulder Creek Road would create a substantially larger disturbance area and would cross more hydrological features compared to reconstruction of TL626 in place as proposed. With additional mitigation, impacts can be mitigated and would be less than significant with mitigation (Class II) under CEQA.

Option 4: Overhead Relocation along Boulder Creek Road

Option 4 would relocate a portion of TL626 out of the Cedar Creek riparian area, which would reduce significant and unavoidable (Class I) impacts under CEQA due to erosion and water quality impacts in the Cedar Creek riparian area (Impact HYD-4). These impacts would be reduced to less than significant with mitigation under CEQA (Class II). Relocating a segment of TL626 as proposed under Option 4 would also avoid Class II impacts associated with conflicts with resource management standards identified in the Forest Service's LMP for the Cedar Creek riparian area (Impact LU-3). This alternative would also remove the access road through Cedar Creek Gorge thereby reducing the Class II impacts associated with unauthorized access in this area of TL626 (Impact REC-3).

While Option 4 would reduce identified effects associated with resource management standards identified in the Forest Service's LMP for the Cedar Creek riparian area, this alternative would create additional impacts when compared to replacing TL626 in place as proposed due to the increased area of disturbance required. Option 4 would extend TL626 to approximately 23.5 miles in length compared to the reconstruction of 18.8 miles of the existing TL626 in place and would develop approximately 7.5 miles of new overhead electric utility ROW along Boulder Creek Road and 2.1 miles of overland ROW in undeveloped areas where none currently exists. As summarized in Table E-1, when compared to the reconstruction of the existing TL626 in place as

proposed by SDG&E, Option 4 would result in the following additional significant effects beyond those that would be caused by SDG&E's proposed project:

- Impact VIS-3 (visual character) and Impact VIS-5 (scenic integrity). As a result of placing new poles and power lines in an area where none currently exist, Impact VIS-3 and VIS-5 would change from less than significant under CEQA (Class III) to significant and unavoidable (Class I) under CEQA. Mitigation Measure MM VIS-1 has been provided to minimize the visual prominence and contrast. However, due to the height of poles, open visibility of the new overhead ROW under Option 4 and proximity of residences, there are no effective screening methods available to reduce the significant visual contrast of the introduction of a new overhead 69 kV transmission line ROW where none currently exists.
- Impact CUL-4 (traditional cultural properties) As a result of placing new poles and power lines in an area where none currently exist, Impact CUL-4 would change from less than significant under CEQA (Class III) to less than significant with mitigation (Class II).
- Impact PHS-4 (flight operations and aviation hazards). As a result of placing new poles and power lines in an area where none currently exist, Impact PHS-4 would require additional mitigation and change from less than significant under CEQA (Class III) to less than significant with mitigation under CEQA (Class II).
- Impact FF-3 (reduced firefighter effectiveness). As a result of placing new poles and power lines in an area where none currently exist, Impact FF-3 would require additional mitigation and change from less than significant under CEQA (Class III) to less than significant with mitigation under CEQA (Class II).

Option 5: Reroute and Undergrounding around Inaja Picnic Area

Option 5 would reduce Impact VIS-1 (Scenic Vista) from significant and unavoidable (Class I) to less than significant (Class III) under CEQA and has the potential to reduce long-term direct collision-related impacts to golden eagles (*Aquila chrysaetos*) as the existing line crosses over the San Diego River gorge at higher elevations and is located within 1 mile of a historical golden eagle nest. As summarized in Table E-1, Option 5 would result in the following significant effects in addition to those that would be caused by SDG&E's proposed project:

- Impact PH-4 (aviation hazards). As a result of placing new poles and power lines in an area where none currently exist, Impact PHS-4 would require additional mitigation and change from less than significant (Class III) to less than significant with mitigation under CEQA (Class II).

- Impact FF-3 (reduced firefighter effectiveness). As a result of placing new poles and power lines in an area where none currently exist, Impact FF-3 would require additional mitigation and change from less than significant (Class III) to less than significant with mitigation under CEQA (Class II).

E.2.3.2 C157 Partial Relocation to Avoid Designated Wilderness

The relocation of C157 to avoid wilderness areas would reduce significant and unavoidable (Class I) impacts under CEQA to land use conflicts associated with the provisions of the Wilderness Act (Impact LU-3). This impact would be reduced to no impact through avoidance. As shown in Table E-1, both options would require a slight increase in area of disturbance when compared to the reconstruction of the existing C157 in place as proposed and, as summarized in Table E-1, would result in the following significant effects in addition to those that would be caused by SDG&E's proposed project:

Option 1: SDG&E Proposed Alignment between Two Wilderness Areas

- Impact BIO-6 (arroyo toad critical habitat). Option 1 would directly impact arroyo toad critical habitat and therefore would require additional mitigation and change from less than significant (Class III) to less than significant with mitigation under CEQA (Class II).
- Impact BIO-7 (conflicts with San Diego City conservation lands) can be mitigated by avoidance through selecting C157 Option 2.

Option 2: City of San Diego Modified Alignment

- Impact BIO-6 (arroyo toad critical habitat) Option 2 would directly impact arroyo toad critical habitat and therefore would require additional mitigation and change from less than significant (Class III) to less than significant with mitigation under CEQA (Class II).

E.2.3.3 C440 Mount Laguna Underground Alternative

While undergrounding C440 within the Mount Laguna Recreation Area would avoid introducing elements (i.e., weathered steel poles) that would create noticeable deviations from the established visual character of the landscape, as discussed in Section D.2.3.3, C440 is not visible from designated scenic vistas (Impact VIS-1) and the alignment tends to be setback from the Sunrise Scenic Byway (Impact VIS-2) and therefore elements proposed by the project would be difficult to detect in the landscape from key public viewpoints. Therefore, the determination that visual impacts (including Impact VIS-1 and VIS 2) would be less than significant under CEQA (Class III) for SDG&E's proposed project would be similar under this alternative.

E.2.3.4 BIA Proposed Action

As shown in Table E-1, while this alternative would reduce visual, recreational, fire, public safety, and land use impacts, the impact findings would be similar when compared to the proposed project.

E.2.3.5 No Action Alternative

Under the No Action Alternative, SDG&E's proposed project would not be constructed. All environmental impacts associated with the construction and operation of the proposed project would be eliminated. SDG&E's existing permits to operate and maintain its facilities on National Forest lands would not be renewed and therefore per the existing permits, SDG&E would be required to remove its electric facilities from the visual landscape, and areas disturbed by construction and operation and maintenance of these facilities would be restored to their pre-project conditions. Restoring to the pre-project site conditions would entail recontouring, grading, stabilization of disturbed surfaces, seeding, and planting to restore the affected areas, which would generate short-term temporary impacts to the environment that were either found under CEQA to be less than significant (Class III), and/or following implementation of mitigation measures presented in this EIR/EIS to be less than significant with mitigation implemented (Class II).

In order that the decision makers can compare the impacts of approving the project with the impacts of not approving the project, the events or actions that would be reasonably expected to occur in the foreseeable future if the MSUP is not approved by the Forest Service must also be considered.

Removal of SDG&E electric facilities from the National Forest would materially reduce and/or eliminate the ability of SDG&E to provide power to the area now served by these facilities. To avoid these consequences, SDG&E would be required to implement additional transmission upgrades. It is reasonably expected that the existing 69 kV and 12 kV electric lines within the National Forest, removed under the No Action Alternative, would be replaced in-kind outside the National Forest on an as-needed basis and therefore are assumed for purposes of the analysis conducted in this EIR/EIS, to be part of the No Action Alternative. As summarized in Table E-1, impacts resulting from removal and replacement of electric facilities under the No Action alternative would (when compared to reconstruction of the existing electric lines in place as proposed by the project), in most cases, be equal to or greater when compared to the proposed project due to the increased disturbance area required for both the restoration and removal of existing facilities combined with the construction of new in-kind facilities outside the National Forest.

E.3 Comparison of SDG&E's Proposed Project with Additional Alternatives

E.3.1 Additional Alternatives Considered

As described in Section C and summarized below, in addition to the No Project Alternative, the EIR/EIS evaluates the following additional alternatives to SDG&E's proposed project.

Partial Removal of Overland Access Roads

This alternative would remove up to 10.5 miles of exclusive use access roads that are in general greater than 25% grade and in close proximity to creeks, particularly along TL626 (Boulder Creek) and TL625 (Barber Mountain/Carveacre).

Removal of TL626 from Service

Under this alternative, TL626 would be removed from service. SDG&E would implement the following system upgrades and changes in order to provide service lost due to the removal of TL626:

- Upgrade the existing 6-mile 69 kV TL6931 by fire hardening and adding a circuit from the Boulevard Substation to the Crestwood Substation or
- Modify existing TL625 by constructing a new 3-mile double circuit loop-in into the Suncrest Substation. The new double circuit 69 kV line would primarily cross National Forest Service lands immediately adjacent to the 500 kV Sunrise Powerlink line. A new transformer and substation rack would be installed within the existing footprint of the Suncrest Substation to establish the new 69 kV source.
- In order to serve existing customers, a 6.8-mile section of TL626 that is co-located with C79 would be converted to a 12 kV fire hardened distribution line and at Boulder Creek Substation this alternative for purposes of the analysis conducted in this EIR/EIS, would also convert a 6.5-mile section of TL626 from 69 kV to 12 kV distribution between the Santa Ysabel and Boulder Creek Substations. Note: as discussed in Section C, Alternatives, of this EIR/EIS, upon agreement with the existing customer at Boulder Creek Substation, SDG&E is free to provide an off-grid solution, thereby eliminating the need to convert a 6.5-mile section of TL626 from 69 kV to 12 kV distribution between the Santa Ysabel and Boulder Creek Substations. The off-grid solution for on-site use is not subject to CPUC or Forest Service approval and is allowed by the County of San Diego upon approval of a building permit. A building permit from the County of San Diego is a ministerial action and not subject to CEQA or NEPA review.

No Project Alternative

Under the No Project Alternative, the proposed power line replacement projects would not be built, and the existing SDG&E electric facilities would remain. Operation and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits.

E.3.2 CEQA Comparison of Impacts for SDG&E's Proposed Project with Additional Alternatives and the No Project Alternative

A detailed analysis of environmental impacts and mitigation for all project alternatives is provided in Sections D.2 through D.14. A comparison of the environmental effects for SDG&E's proposed project and additional alternatives considered is provided in Table E-2. See Section E.3.3, Overall Ranking of the Additional Alternatives, Including the No Project Alternative.

Table E-2
Comparison of Impacts for SDG&E’s Proposed Project with Additional Alternatives

Proposed Project Impact	Additional Alternatives		
	Partial Removal of Overland Access Roads	Removal of TL626 from Service	No Project Alternative
<i>Visual Resources (see Section D.2 for full analysis)</i>			
<p>VIS-1: Scenic Vista (Class I TL626 (Inaja Scenic Overlook. All others III))</p> <p>VIS-2: Scenic Highway (Class II C440 and all others III)</p> <p>VIS-3: Visual Character (Class II limited poles only and all others III)</p> <p>VIS-4: Glare/Light (Class III)</p> <p>VIS-5: Scenic Integrity (Class II certain poles TL625, TL626, TL629, TL682, C440, C157 and all others III)</p>	<p>[=] While removal of certain segments of access roads would reduce and avoid some of the visual impacts identified for the proposed project, overall visual impacts findings would be identical to those of the proposed project.</p>	<p>[-] Would reduce Class I impact of TL626 from the Inaja Scenic Overlook. All other impact findings would, in most cases, be similar or reduced when compared to the proposed project due to the removal of TL626 out of areas managed as having high value resource protection and replaced with facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead utility ROWs.</p>	<p>[-] Would eliminate all identified impacts to visual resources associated with construction of the proposed power line replacement projects.</p> <p>The existing conditions, which include lands that are intermittently traversed by existing infrastructure (transmission and distribution towers, wires, and access roads) operated by SDG&E, would remain at these sites, and the ongoing conflicts with the Forest Service LMP High scenic integrity objectives would continue, and therefore the severity of impacts under existing conditions to visual resources would not change.</p> <p>It is anticipated that over time, individual wood poles could be replaced with steel poles during operations and maintenance (O&M) activities due to possible safety issues and therefore, long-term visual impacts over time are anticipated to be similar.</p>
<i>Air Quality (see Section D.3 for full analysis) and Greenhouse Gas Emissions (see Section D.6 for full analysis)</i>			
<p>AIR-1: Short-term construction-related NO_x and PM₁₀ air emissions (Class I), other short-term air quality impacts (Class III).</p> <p>AIR-2: Long-term impacts (Class III).</p>	<p>[=] Impact findings would be similar to the proposed project and would include adverse and unmitigable AIR-1 impacts (Class I).</p>	<p>[=] Impact findings would be similar to the proposed project and would include adverse and unmitigable AIR-1 impacts (Class I).</p>	<p>[-] Would eliminate all identified air emissions and associated air quality and GHG impacts associated with construction of the proposed power line replacement projects including Impact AIR-1 Class I impacts.</p>

Table E-2
Comparison of Impacts for SDG&E’s Proposed Project with Additional Alternatives

Proposed Project Impact	Additional Alternatives		
	<i>Partial Removal of Overland Access Roads</i>	<i>Removal of TL626 from Service</i>	<i>No Project Alternative</i>
AIR-3: General Conformity (federal) – not adverse			
AIR-4: Conflict with Land Use Plans (No Impact)			
AIR-5: Expose Sensitive Receptors (Class III)			
GHG-1 through GHG-3: Result in GHG during construction and operations or Conflict with Applicable Plan (Class III)			
<i>Biological Resources (see Section D.4 for full analysis)</i>			
BIO-1: Vegetation Loss (Class II)	<p>[-] Would reduce Impact BIO-4 Class II impacts to Class III. Other impact findings (Class II and III) would be nearly identical when compared to the proposed project.</p>	<p>[=] Impact findings would, in most cases, be similar or reduced when compared to the proposed project due to the removal of TL626 out of areas managed as having high-value resource protection and replaced with facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead utility ROWs.</p>	<p>[-] Would eliminate all identified impacts to biological resources associated with construction of the proposed power line replacement projects.</p> <p>The existing conditions, which include ongoing impacts to biological resources associated with erosion of steep access roads, fire hazards, and impacts to sensitive species and habitat due to ongoing operations and maintenance of existing infrastructure (transmission and distribution towers, wires, and access roads) operated by SDG&E, would continue and therefore the severity of impacts under existing conditions to biological resources</p>
BIO-2: Loss of Preserve Areas (Class II)			
BIO-3: Native Wildlife (Class III)			
BIO-4: Jurisdictional Resources (Class II)			
BIO-5: Invasive Species (Class II)			
BIO-6: Sensitive Species (Class II)			
BIO-7: Conflict with Adopted Plans			

**Table E-2
Comparison of Impacts for SDG&E's Proposed Project with Additional Alternatives**

Proposed Project Impact	Additional Alternatives		
	<i>Partial Removal of Overland Access Roads</i>	<i>Removal of TL626 from Service</i>	<i>No Project Alternative</i>
(Class III) BIO-8: Interfere with wildlife movement/corridors (Class III)			would not change.
<i>Cultural and Paleontological Resources (see Section D.5 for full analysis)</i>			
CUL-1: Historical Resources (Class II) CUL-2: Archaeological Resources (Class II) CUL-3: Human Remains (Class III) CUL-4: TCP (Class III) PALEO-1: Unique Paleontological Resource or Geologic Feature (Class III)	[=] Impact findings would be similar to the proposed project.	[=] Impact findings would be nearly identical to those of the proposed project.	[-] Would eliminate all identified impacts to cultural and paleontological resources associated with construction of the proposed power line replacement projects. * Operations and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks. While these activities represent a potential impact to cultural resources, these activities would not increase in duration, intensity, or frequency over existing conditions; therefore, no impacts over existing conditions to cultural resources would occur.
<i>Public Health and Safety (see Section D.7 for full analysis)</i>			
PHS-1 through PHS-3: Hazardous materials impacts during construction (Class II). PHS-4: Flight Operations/Aviation Hazards (Class II) PHS-5: Emergency Response	[=] May increase impacts to PHS-4 due to additional helicopter use; however, overall impact findings would be similar to the proposed project.	[=] Impact findings would, in most cases, be similar when compared to the proposed project due to the removal of TL626 and replacement with facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead utility ROWs.	[-] Would eliminate all identified impacts to public health and safety associated with construction of the proposed power line replacement projects. The ongoing public health and fire risks associated with structural failure Impact PHS-6 due to extreme weather conditions would continue as further discussed in Section D.8, Fire

**Table E-2
Comparison of Impacts for SDG&E's Proposed Project with Additional Alternatives**

Proposed Project Impact	Additional Alternatives		
	Partial Removal of Overland Access Roads	Removal of TL626 from Service	No Project Alternative
(Class III) PHS-6: Structural Failure (Class II) PHS-7: Shock Hazards (Class III)			and Fuels.
<i>Fire and Fuels Management (see Section D.8 for full analysis)</i>			
FF-1: Construction, Operation, And Maintenance Could Start A Wildfire (Class II). FF-2: Presence Of Transmission Lines Could Start a Fire (Class III). FF-3: Reduced Firefighter Effectiveness (Class III). FF-4: Introduction of Non-native Plants (Class II)	[=] Impact findings would be similar to the proposed project.	[=] Impact findings would, in most cases, be similar when compared to the proposed project due to the removal of TL626 out of high fire hazard areas and replaced with facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead utility ROWs.	[+] Would eliminate Impact FF-1 associated with construction of the proposed power line replacement projects. The fire hardening of the existing electric lines as proposed would not occur and the fire hazards associated with the existing electric lines would remain and therefore the risks associated with starting a fire (Impact FF-2) would be higher.
<i>Hydrology and Water Quality (see Section D.9 for full analysis)</i>			
HYD-1 and HYD-2: Short-term construction activities would degrade water resources (Class II). HYD-3: Groundwater Supply (Class II) HYD-4: Access Roads (Class I and II) HYD-5: Maintenance - Vegetation Management, Pesticide, and Herbicide Application (Class II)	[-] HYD-4 Class I impacts would be eliminated associated with access to TL626. Other impact findings would remain similar.	[-] HYD-4 Class I impacts would be eliminated associated with access to TL626. Other impact findings would, in most cases, be similar when compared to the proposed project due to the removal of TL626 and replacement with facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead utility ROWs.	[-] Would eliminate all identified hydrology and water quality impacts associated with construction of the proposed power line replacement projects. The existing erosion and gulying conditions in steep-slope areas along exclusive use access roads and within the SDG&E ROW would continue to be repaired as needed (seasonally) by SDG&E, typically by importing soil and filling in rutted areas and potholes. This would represent an ongoing degradation issue as excessive

Table E-2
Comparison of Impacts for SDG&E's Proposed Project with Additional Alternatives

Proposed Project Impact	Additional Alternatives		
	<i>Partial Removal of Overland Access Roads</i>	<i>Removal of TL626 from Service</i>	<i>No Project Alternative</i>
			levels of sediment would continue to be carried by stormwater flows into waterways and locally increase turbidity levels in creeks (when flowing). Operation and maintenance activities would not increase in duration, intensity, or frequency over existing conditions; therefore, the severity of impacts under existing conditions to hydrology and water quality would not change.
<i>Land Use (see Section D.10 for full analysis)</i>			
LU-1: Temporary Disturbance Due to Construction (Class II) LU-2: Divide an Established Community (No Impact) LU- 3: Conflict with Applicable Land Use Plan: C157 (Class I), and TL626 and C442 (Class II), all others Class III	[-] Would reduce Impact LU-3 Class II impacts associated with Cedar Creek riparian area and LMP amendment associated with access to TL626. All other impact findings would be nearly identical to those of the proposed project.	[-] Would reduce Impact LU-3 Class II impacts associated with Cedar Creek riparian area and LMP Amendment to Class III. All other land use impact findings would, in most cases, be similar when compared to the proposed project due to the removal of TL626 and replacement with facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead electric utility ROWs.	[-] Would eliminate all identified impacts to land use associated with construction of the proposed power line replacement projects. The ongoing land use conflicts with the Forest Service LMP associated with TL626 and C442 and conflicts with the Wilderness would continue, and therefore, no additional impacts over existing conditions to land use and planning would occur.
<i>Noise (see Section D.11 for full analysis)</i>			
NOI-1 and NOI-2: Construction Noise (Class II) NOI-3 and NOI-4: Corona Noise/Long-Term Impacts (Class III).	[=] While long-term impacts may increase due to the potential increase in helicopter use required for operations and maintenance activities, impact findings would be similar to the proposed project.	[=] Noise impact findings would, in most cases, be similar when compared to the proposed project due to the development of replacement facilities requiring a similar disturbance footprint within or immediately adjacent to existing overhead electric utility ROWs.	[-] Would eliminate all identified noise impacts associated with construction of the proposed power line replacement projects.

Table E-2
Comparison of Impacts for SDG&E's Proposed Project with Additional Alternatives

Proposed Project Impact	Additional Alternatives		
	Partial Removal of Overland Access Roads	Removal of TL626 from Service	No Project Alternative
<i>Public Services and Utilities (see Section D.12 for full analysis)</i>			
PSU-1: Effects on Fire, Water Supply, and Telecommunications facilities (Class II). PSU-2: and PSU-3: Solid Waste Disposal Facilities and Disruption of Electrical Service (Class III).	[=] Impact findings would be similar to the proposed project.	[=] While disruptions to customers served by TL626 would likely be greater, impact findings would be similar to the proposed project.	[-] Would eliminate all identified impacts to public services and utilities associated with construction of the proposed power line replacement projects.
<i>Recreation (see Section D.13 for full analysis)</i>			
REC-1: Reduce Access During Construction (Class II). REC-2: Project Components Reduce Access to Recreation Areas (Class III) REC-3: Unauthorized Access (Class II)	[=] Impact findings would be similar to those of the proposed project.	[-] Removal of TL626 from a high resource protection area would reduce Class II impacts associated with unauthorized access (Rec-3) to Class III. Impact findings to REC-1 and REC-2 would be similar to those of the proposed project.	[=] While the no project alternative would eliminate identified impacts to recreation associated with construction of the proposed power line replacement projects, operation and maintenance of SDG&E electrical facilities would continue and include the existing use of SDG&E's access roads, and therefore unauthorized access (Impact REC-3) would be similar to that identified for the proposed project.
<i>Transportation and Traffic (see Section D.14 for full analysis)</i>			
TRANS-1 through TRANS-5: Short-term construction activities would cause Class III impacts to traffic and roadways.	[=] Impact findings would be similar to the proposed project.	[=] Impacts would be similar to those of the proposed project.	[-] Would eliminate all identified traffic impacts associated with construction of the proposed power line replacement projects.

Note: The plus (+), minus (-), and equal (=) signs noted in Table E-2 generally indicate whether the alternative increases, reduces, or would have similar impact level classifications, as defined in Section D.1 of this EIR/EIS, when compared to the proposed project. For example, while undergrounding a portion of a transmission line would reduce and avoid some of the visual impacts, the overall impact findings (i.e., determination that the impact is not adverse under NEPA and less than significant under CEQA (Class III)) may be equal (=) to those identified for the proposed project. In areas where the alternative would change the requirement for mitigation and/or impact classification finding, a plus (+) or minus (-) sign is given.

E.3.3 Overall Ranking of the Additional Alternatives, Including the No Project Alternative under CEQA

As summarized in Table E-2 and Section E.2.3, SDG&E's proposed project would have significant and unavoidable (Class I) impacts under CEQA in the following issue areas: Impact VIS-1, Impact AIR-1, Impact HYD-4, and Impact LU-3.

Impacts in the remaining 10 issue areas under CEQA were either found to be less than significant (Class III) and/or following implementation of mitigation measures presented in this EIR/EIS to be less than significant with mitigation implemented (Class II).

E.3.3.1 Partial Removal of Overland Access Roads

This alternative would remove and not reauthorize the use of up to 10.5 miles of exclusive use access roads that exceed 25% slope for appreciable distances in close proximity to creeks. All other project components would be the same. The partial removal of steep access roads, as proposed under this alternative, would reduce significant and unavoidable (Class I) impacts under CEQA to erosion and water quality (Impact HYD-4) associated with existing access roads in excess of 25% slope. This impact would be reduced to less than significant with mitigation under CEQA (Class II). As summarized in Table E-2, impact findings to other issue areas would be similar when compared to the proposed project.

E.3.3.2 Removal of TL626 from Service

This alternative would remove TL626 from the view of the Inaja scenic overlook and out of the Cedar Creek riparian area, which would reduce significant and unavoidable (Class I) impacts under CEQA to scenic vistas associated with TL626 (Impact VIS-1) and erosion and water quality impacts in the Cedar Creek riparian area (Impact HYD-4). These impacts would be reduced to less than significant with mitigation under CEQA (Class II).

Removal of TL626 would also avoid Class II impacts associated with conflicts with resource management standards identified in the Forest Service's LMP for the Cedar Creek riparian area and avoid Class II impacts associated with unauthorized access (Impact REC-3).

As summarized in Table E-2 and discussed below, impacts to other issue areas would, in most cases, be similar or reduced when compared to the proposed project. The proposed project includes fire hardening of TL626, which is approximately 18.8 miles in length. Facilities proposed under this alternative would require a similar or reduced disturbance footprint within and/or adjacent to existing overhead electric utility ROWs. This alternative would convert approximately 13 miles of TL626 from 69 kV to 12 kV to serve existing customers and

depending on the selected option, this alternative would require either the reconstruction of 6 miles of existing TL6931 or the development of a new 3-mile 69 kV ROW immediately adjacent to the 500 kV Sunrise Powerlink line.

Reconstruction of TL6931

Reconstruction of 6 miles of TL6931 would consist of construction activities similar to that described for the project. Due to the nature of the existing TL6931 alignment, there would not be a substantial change to the baseline condition including the presence of sensitive environmental resources that could be impacted by construction and operations impacts, and therefore as summarized in Table E-2, impacts would reflect similar impact findings previously discussed for the proposed project.

Development of the New 3-Mile Loop-in of TL625

Development of the new 3-mile TL625 loop-in would consist of similar construction as well as operations and maintenance activities as that described for the project in areas of rugged terrain where no overland access is available or proposed. New construction to loop-in TL629 into the Suncrest Substation would occur primarily on National Forest Service lands within 100 feet of the existing 500 kV Sunrise Powerlink line, consistent with Cleveland National Forest (CNF) LMP direction to co-locate facilities, and would occur within suitable land use zones. Therefore, due to the existing undeveloped nature of the proposed alignment, there would not be a substantial change to the baseline condition, including the presence of sensitive environmental resources that could be impacted by construction and operation impacts, and therefore as summarized in Table E-2, impacts would reflect similar impact findings previously discussed for the proposed project.

Convert Portions of TL626 from 69 kV to 12 kV

The conversion of two segments of TL626 to 12 kV would consist of similar construction as well as operations and maintenance activities, and as summarized in Table E-2, impacts would reflect similar impact findings previously discussed for the proposed project. The segment of TL626 proposed for fire hardening within the Cedar Creek riparian area would be removed and corresponding impacts (as discussed above) would be eliminated.

E.3.3.3 No Project Alternative

Under the No Project Alternative, the proposed power line replacement projects would not be built and the existing SDG&E electric facilities would remain; therefore, none of the temporary and permanent construction impacts described in Sections D.2 through D.14 would occur.

Operation and maintenance of SDG&E electrical facilities would continue and include routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks and would be based on the requirements of the existing permits. While these activities represent a potential impact to existing natural resources and applicable plans as summarized in Table E-2, these activities would not increase in duration, intensity, or frequency over existing conditions; therefore, no impacts over existing conditions would occur.

Additionally, the benefits associated with the reduction in the risk of power line-related wildfire as well as reliability improvements of power delivery to the unincorporated communities of Descanso, Campo, Pauma Valley, Santa Ysabel, Warner Springs, and other surrounding communities would not be developed, and the removal of over 11 miles of access roads and undergrounding of 13 miles of electric lines as proposed would not be implemented.

E.4 CEQA Environmentally Superior Alternative

CEQA requires that the environmentally superior alternative be selected from a range of reasonable alternatives that could feasibly attain the basic objectives of the project. As previously discussed in Section E.1.1, the environmental superiority of alternatives does not consider whether SDG&E's proposed project or an alternative would improve existing environmental conditions and does not consider the beneficial impacts of any alternative above and beyond its ability to reduce or avoid significant effects of the proposed project. Therefore, based on the analysis presented in Sections D.2 through D.14 and comparison of alternatives presented in Sections E.2 and E.3 of this EIR/EIS, the environmentally superior alternative was determined under CEQA to be the No Project Alternative. Under the No Project Alternative, the proposed project would not be constructed. All environmental impacts associated with the construction and operation of the proposed project would be eliminated and existing environmental conditions would be unaffected and the associated benefits described in Section E.3.3.3 would not occur.

Under the No Project Alternative the Forest Service would manage the existing facilities under their existing permits which may be problematic due to ongoing baseline conditions as summarized in Table E-2 associated with the operations and maintenance of SDG&E's facilities in certain areas (particularly along TL626 and along C157)) not meeting resource management standards as determined by the LMP.

CEQA Guidelines, Section 15126, subd. (d)(2) further stipulates that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Sections E.4.1 and E.4.2 identify the components of the various alternatives considered that, if implemented as a complete project, would form the environmentally superior alternative as defined in Section E.4.3 other than the No Project Alternative.

E.4.1 Consideration of the Federal Proposed Action

As discussed in Section E.2, the federal proposed action modifies SDG&E's proposed project along four project alignments, including TL626, C157, C440, and TL682 (the BIA proposed action).

Forest Service Proposed Action for TL626: While Options 1, 2, 3, and 4 would relocate a portion of TL626 out of the Cedar Creek undeveloped area and would also avoid conflicting with resource management standards identified in the Forest Service's LMP for the Cedar Creek riparian area, additional significant effects beyond those that would be caused by the project as proposed by SDG&E would occur as described in Section E.2.3.1. In terms of comparing the number of adverse environmental effects created versus reduced or eliminated, as summarized in Section E.2.3.1 and in Table E-1, Options 1 through 4 as proposed by the Forest Service for TL626 are not preferred over SDG&E's proposed reconstruction of TL626 in place.

Option 5, which relocates a segment of TL626 around the Inaja Memorial Picnic Area, would reduce under CEQA Impact VIS-1 (Scenic Vista) from significant and unavoidable (Class I) to less than significant (Class III) and has the potential to reduce long-term direct collision-related impacts to golden eagles. As described in Section E.2.3.1, Option 5 would also result in additional significant effects beyond those that would be caused by the project as proposed. In terms of comparing the number of adverse environmental effects created versus reduced or eliminated, as summarized in Section E.2.3.1 and in Table E-1, Option 5 as proposed by the Forest Service for TL626 would be environmentally superior to SDG&E's proposed reconstruction of TL626 in place.

Forest Service Proposed Action for C157: Relocation of C157 (Options 1 and 2) would eliminate the significant and unavoidable (Class I) impacts under CEQA to land use conflicts associated with the provisions of the Wilderness Act. While additional significant effects beyond those that would be caused by SDG&E's proposed project were identified to arroyo toad critical habitat and to City of San Diego conservation lands, these impacts can be mitigated by selecting Option 2, City of San Diego Modified Alignment, and by implementation of new mitigation measures as described in Section D.4, Biological Resources. In terms of comparing the number of adverse environmental effects created versus reduced or eliminated, as summarized in Section E.2.3.2 and in Table E-1, relocation of C157 Option 2, City of San Diego Modified Alignment, would be environmentally superior to SDG&E's proposed reconstruction of C157 in place.

Forest Service Proposed Action for C440 Underground: While this alternative would underground additional portions of C440 within the Mount Laguna Recreation Area beyond SDG&E's proposed project and would thereby reduce long-term impacts due to fire hazards and

visual impacts, the impact findings as described in Section E.2.3.3 would be similar to those described for SDG&E's proposed project. In addition, this alternative would have greater short-term impacts due to the increased disturbance area required for construction when compared to reconstruction of the existing electric lines in place as proposed by the project. In terms of comparing the number of adverse environmental effects created versus reduced or eliminated, as summarized in Section E.2.3.3 and in Table E-1, further undergrounding as proposed by the Forest Service for C440 is not preferred over SDG&E's proposed reconstruction of C440, which includes undergrounding as well as overhead reconstruction in place.

BIA Proposed Action for TL682: This alternative would relocate a portion of TL682 (within the La Jolla Reservation). While this alternative would reduce visual, recreational, fire, public safety, and land use impacts, the impact findings as described in Section E.2.3.4 and in Table E-1 would be similar when compared to the proposed project and therefore this alternative would rank equally with SDG&E's proposed reconstruction of TL682 in place.

E.4.2 Consideration of the Additional Alternatives

Partial Removal of Overland Access Roads: This alternative would remove access road segments in excess of 25% slope along TL626, TL625, TL629, and C442. As discussed in Section D.9.3.3, it has been determined that there is no way to feasibly avoid substantial long-term effects on erosion and sedimentation (Impact HYD-4) without decommissioning (removing) or realigning these road segments as proposed under this alternative. This alternative would therefore reduce HYD-4 impacts that were determined under CEQA to be significant and unavoidable (Class I) to less than significant with mitigation (Class II), without creating additional impacts. In terms of comparing the number of adverse environmental effects created versus reduced or eliminated, as summarized in Section E.3.3.1 and in Table E-2, removing overland access roads in excess of 25% as described in this alternative would be environmentally superior to SDG&E's proposed project, which would re-authorize under the MSUP the use of road segments in excess of 25% slope within sensitive watersheds.

Removal of TL626 from service: This alternative would remove TL626 out of areas managed by the Forest Service as having high-value resource protection and would replace TL626 with facilities requiring a similar or reduced disturbance footprint within existing overhead electric utility ROWs and when compared to SDG&E's proposed project would under CEQA reduce significant and unavoidable (Class I) impacts in the following issue areas: Impact VIS-1 (Scenic Vista) associated with the TL626 and the Inaja Scenic Overlook and erosion and water quality impacts in the Cedar Creek riparian area (Impact HYD-4).

Removal of TL626 as proposed under this alternative would also avoid conflicts with the LMP amendment (Impact LU-3) determined to be Class II while not substantially increasing impacts

to other issue areas considered as described in Section E.3.3.2. In terms of comparing the number of adverse environmental effects created versus reduced or eliminated, as summarized in Section E.3.3.2 and Table E-2, removing TL626 from service as described in this alternative would be environmentally superior to SDG&E’s proposed project.

E.4.3 Environmentally Superior Alternative

Overall, based on the analysis for each alternative presented in Sections D.2 through D.14, and as summarized in this section, the environmentally superior alternative is defined in Table E-3.

Table E-3
Environmentally Superior Alternative

Alternative	Jurisdiction
<i>Power Line Replacement Projects</i>	
SDG&E’s proposed power line replacement projects: TL682, TL625, TL629, TL6923, C79, C78, C442, C440, C449.	CPUC, FS, BLM, and BIA to consider.
Relocation of C157 out of wilderness (Option 2 City of San Diego Modified Alignment)	CPUC and FS to consider
Removal of TL626 and replacement with electric facilities within existing electric utility ROWs* <ul style="list-style-type: none"> • Reconstruction of TL6931 • Conversion of 13 miles of TL626 to 12 kV 	CPUC, FS, and BIA (Campo Reservation) to consider
<i>MSUP</i>	
Partial Removal of Overland Access Roads	FS to consider reduction of existing exclusive use access roads on National Forest lands.

Notes:

¹ Reconstruction of TL6931 compared to developing the TL625 loop-in along the Sunrise Powerlink would rank similarly in terms of number of adverse impacts created vs reduced or eliminated. Reconstruction of TL6931 ranks higher due to the extensive work completed for TL6931, which provides a knowledge base that reduces the risk of impacting environmental resources (Sources: SDG&E 2012, TL6931 PEA)
 BIA = Bureau of Indian Affairs, BLM = Bureau of Land Management, CPUC = California Public Utilities Commission, FS = Forest Service.

While the environmentally superior alternative would reduce the proposed reconstruction of existing power lines by approximately 5 miles, it would still under CEQA result in the following unmitigable (Class I) impacts:

- **Air Quality:** Short-term construction VOC, NO_x, and dust emissions. All feasible measures would be implemented to reduce emissions (APMs AIR-01 through AIR-05); however, VOC, NO_x, CO, and PM_{2.5} emissions would remain above the thresholds and therefore would be considered significant and unavoidable under CEQA (Class I).

The environmentally superior alternative, specifically the relocation of C157, would under CEQA avoid the significant and unavoidable (Class I) impact to land use conflicts (Impact LU-3)

associated with the provisions of the Wilderness Act. This impact under CEQA would be reduced to less than significant (Class III) through avoidance.

Without substantially increasing impacts to other issue areas, the environmentally superior alternative would, also under CEQA, avoid significant and unavoidable (Class I) impacts to the Inaja Scenic Overlook (Impact VIS-1) by removing TL626 from service, reduce impacts due to erosion and water quality impacts in the Cedar Creek riparian area (Impact HYD-4 associated with TL626) to less than significant with mitigation (Class II), and reduce significant land use impacts (Class II) LU-3 impacts associated with TL626 conflicts with the Forest Service LMP amendment to no impact.

E.5 Comparison of the Alternatives under NEPA

This section is structured in two parts. The first part compares the options that are present in the federal proposed action for TL626 (five options) and C157 (two options), and in the TL626 replacement alternative proposed by SDG&E (two options). The federal preferred option for each line segment is then carried forward into the second part of this section to compare to the remaining alternatives.

E.5.1 Comparison of Federal Proposed Action and TL626 Replacement Options

E.5.1.1 Federal Proposed Action for TL626

The Forest Service proposed action included five options for TL626. The reroute around Inaja Fire Memorial Site is the same for all five options. The key features of the options for TL626 are summarized in Table E-4. The environmental effects of the options are summarized by resource area in Table E-5.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-4
Summary of Federal Proposed Action for TL626 Options**

Key Feature	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	<i>Overhead option through Inaja and Cosmit Reservation</i>	<i>Overhead option around Inaja and Cosmit Reservation</i>	<i>Underground relocation in Boulder Creek Road (11.4 miles UG) with northern 1 miles OH.</i>	<i>Partial underground relocation in Boulder Creek Road (6.3 miles UG) with northern 1 mile OH.</i>	<i>Overhead relocation along Boulder Creek Road</i>
Miles of OH TL on federal ¹ lands	3.2	2.3	.5	.5	6.2
Miles of OH TL on Private land	4.9	5.9	0.8	.8	4.6
Miles of UG TL on federal lands	0	0	5.7	3.1	0
Miles of UG TL on Private land	0	0	4.9	3.2	0
Miles of exclusive use road on federal land	2.2	2.0	1.0	1.0	1.0
Miles of exclusive use roads on private land	9	9	— ²	— ²	— ²

Notes:

¹ Federal lands include any National Forest System lands managed by the Forest Service, Public Lands managed by the BLM, or reservation lands managed in trust by the BIA.

² Data unavailable during preparation of EIR/EIS

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	<i>Overhead option through Inaja and Cosmit Reservation</i>	<i>Overhead option around Inaja and Cosmit Reservation</i>	<i>Underground relocation in Boulder Creek Road (11.4 miles UG) with northern 1 mile miles OH.</i>	<i>Partial underground relocation in Boulder Creek Road (6.3 miles UG) with northern 1 mile OH.</i>	<i>Overhead relocation along Boulder Creek Road</i>
<i>Visual Resources (see Section D.2 for full analysis)</i>					
VIS-1 and VIS-2: Scenic Vista/Scenic Highway	Views from the Inaja Scenic Overlook would be adverse and unmitigable (VIS-1). Views to overhead segments from scenic highways would be partially screened by existing vegetation and topography and pole replacement activities would not substantially affect existing scenic resources; therefore, impacts would not be adverse (VIS-2).	Views from the Inaja Scenic Overlook would be adverse and unmitigable (VIS-1). Views to overhead segments from scenic highways would be partially screened by existing vegetation and topography and pole replacement activities would not substantially affect existing scenic resources; therefore, impacts would not be adverse (VIS-2).	Views from the Inaja Scenic Overlook would be adverse and unmitigable (VIS-1). The majority of the line would be underground therefore would not be visible. Views to the 1-mile overhead segment would not be visible from scenic highways and views to TL626 from SR-79 and SR-78 would be partially screened by existing vegetation and topography. In addition, pole replacement activities would not substantially affect existing scenic resources. Therefore, impacts would not be adverse (VIS-2).	Views from the Inaja Scenic Overlook would be adverse and unmitigable (VIS-1). The majority of the line would be underground, therefore would not be visible. Views to the 1-mile overhead segment would not be visible from scenic highways and views to TL626 from SR-79 and SR-78 would be partially screened by existing vegetation and topography. In addition, pole replacement activities would not substantially affect existing scenic resources. Therefore, impacts would not be adverse (VIS-2).	Views from the Inaja Scenic Overlook would be adverse and unmitigable (VIS-1). Views to overhead segments from scenic highways would be partially screened by existing vegetation and topography and pole replacement activities would not substantially affect existing scenic resources. Therefore, impacts would not be adverse (VIS-2).
VIS-3: Visual Character	Establishment of new ROW and overhead alignment where none currently exists would be adverse and unmitigable.	Establishment of new ROW and overhead alignment where none currently exists would be adverse and unmitigable.	Establishment of new 1-mile ROW and overhead alignment where none currently exists would be adverse and unmitigable.	Establishment of new 1-mile ROW and overhead alignment where none currently exists would be adverse and unmitigable.	Establishment of new ROW and overhead alignment where none currently exists would be adverse and unmitigable.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
VIS-4: Glare/Light	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina and with APMs requiring use of non-specular conductors, glare effects would not be adverse.	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina and with APMs requiring use of non-specular conductors, glare effects would not be adverse.	Nighttime construction may occur but is not adverse with implementation of APMs.	Nighttime construction may occur but is not adverse with implementation of APMs.	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina and with APMs requiring use of non-specular conductors, glare effects would not be adverse.
VIS-5: Scenic Integrity	Inconsistent with the established High scenic integrity objective of the CNF LMP. With required mitigation, inconsistencies with the High scenic integrity objective would be allowed and conflicts with the CNF LMP would be addressed as required by the National Forest Management Act.	Inconsistent with the established High scenic integrity objective of the CNF LMP. With required mitigation, inconsistencies with the High scenic integrity objective would be allowed and conflicts with the CNF LMP would be addressed as required by the National Forest Management Act.	Inconsistent with the established High scenic integrity objective of the CNF LMP. With required mitigation, inconsistencies with the High scenic integrity objective would be allowed and conflicts with the CNF LMP would be addressed as required by the National Forest Management Act.	Inconsistent with the established High scenic integrity objective of the CNF LMP. With required mitigation, inconsistencies with the High scenic integrity objective would be allowed and conflicts with the CNF LMP would be addressed as required by the National Forest Management Act.	Inconsistent with the established High scenic integrity objective of the CNF LMP. With required mitigation, inconsistencies with the High scenic integrity objective would be allowed and conflicts with the CNF LMP would be addressed as required by the National Forest Management Act.
<i>Air Quality (see Section D.3 for full analysis)</i>					
AIR-1: Short-term construction-related air quality impacts	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	required mitigation.	mitigation.	required mitigation.	required mitigation.	required mitigation.
AIR-2: Long-term emission impacts	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.
AIR-3: General Conformity	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds.
AIR-4: Conflict with Land Use Plans	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.
AIR-5: Expose Sensitive Receptors	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.
<i>Biological Resources (see Section D.4 for full analysis)</i>					
BIO-1: Vegetation Loss	Construction of new ROW would result in 9 acres of temporary impacts and 23 acres of permanent impacts. The additional impacts would result from construction of new access roads and helicopter landing areas used during construction and operations. Impacts would	The new ROW is partially located in Forest Service-suitable modeled habitat for Laguna Mountains skipper and San Bernardino bluegrass. Construction of new ROW would result in 9 acres of temporary impacts and 28 acres of permanent impacts. The additional impacts would result from	Trenching activities in roadway would have minimal direct effects on vegetation communities. Direct and indirect impacts would not be adverse with the required mitigation.	Trenching activities in roadway would have minimal direct effects on vegetation communities. Direct and indirect impacts would not be adverse with the required mitigation.	Construction of a new ROW would result in temporary and permanent vegetation loss along Boulder Creek Road. Impacts would not be adverse with the required mitigation.

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	not be adverse with the required mitigation.	construction of new access roads and helicopter landing areas used during construction and operations. Impacts would not be adverse with the required mitigation.			
BIO-2: Loss of Preserve Areas	Impacts to Forest Service Resource Conservation Areas (RCAs) and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment in the new ROW. Impacts would not be adverse with the required mitigation.	Impacts to Forest Service RCAs and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment in the new ROW. Impacts would not be adverse with the required mitigation.	Impacts to Forest Service RCAs and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment in the new ROW. Impacts would not be adverse with the required mitigation.	Impacts to Forest Service RCAs and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment in the new ROW. Impacts would not be adverse with the required mitigation.	Impacts to Forest Service RCAs and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment in the new ROW. Impacts would not be adverse with the required mitigation.

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
BIO-3: Native Wildlife	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status species, would not be adverse.	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status species, would not be adverse.	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status species, would not be adverse.	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status species, would not be adverse.	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status species, would not be adverse.
BIO-4: Jurisdictional Resources	Temporary and permanent impacts to jurisdictional waters and wetlands would be greater than assessed for SDG&E's proposed project; impacts would be adverse. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts to jurisdictional waters and wetlands would be greater than assessed for SDG&E's proposed project; impacts would be adverse. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts to jurisdictional waters and wetlands would be adverse. Impacts would not be adverse with the required mitigation.	Temporary impacts to jurisdictional waters and wetlands would be greater and permanent impacts would occur; impacts would be adverse. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts to jurisdictional waters and wetlands would be adverse. Impacts would not be adverse with the required mitigation.
BIO-5: Invasive Species	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
BIO-6: Candidate, Sensitive, or Special-Status Species	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.
BIO-7: Conflict with HCP, NCCP, or other Conservation Plan	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.
BIO-8: Interfere with Wildlife Movement/Corridors	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.
<i>Cultural and Paleontological Resources (see Section D.5 for full analysis)</i>					
CUL-1: Historical Resources; CUL-2: Archaeological Resources; CUL-3: Human Remains; CUL-4: Traditional Cultural Properties; PALEO-1: Unique Paleontological Resource or Geologic Feature	New poles would be located near Pine Hills Fire Station (a National Register of Historic Places (NRHP)-eligible building). Overall, impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.	New poles would be located near Pine Hills Fire Station (an NHRP-eligible building). Overall, impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.	Impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.	Impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.	New poles would be located near Pine Hills Fire Station (a National Register eligible building). Overall, impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
<i>Greenhouse Gases (see Section D.6 for full analysis)</i>					
GHG-1 and GHG-2: Increase GHG emissions	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.
GHG-3: Conflict with applicable plan or GHG adopted regulations	As construction activities would not meet or exceed the Climate Action Plan (CAP) screening criteria, impacts would not be adverse	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse
<i>Public Health and Safety (see Section D.7 for full analysis)</i>					
PHS-1 through PHS-3: Hazardous Materials Impacts During Construction	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	Use of petroleum products and herbicides, and the potential for accidental spills, during construction, operations, and maintenance, as well as the potential to encounter contaminated soils during trenching activities would not be adverse with the required mitigation.	Use of petroleum products and herbicides, and the potential for accidental spills, during construction, operations, and maintenance, as well as the potential to encounter contaminated soils during trenching activities would not be adverse with the required mitigation	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.
PHS-4: Flight Operations/Aviation Hazards	Temporary use of helicopters to place poles may result in adverse impacts. Impacts would not be adverse with the required mitigation. In addition, as poles are within a new ROW, this	Temporary use of helicopters to place poles may result in adverse impacts. Impacts would not be adverse with the required mitigation. In addition, as poles are within a new ROW, this alternative	Underground – no impact. The 1-mile OH portion could create aviation hazards. Impacts would not be adverse with the required mitigation.	Underground – no impact. The 1-mile OH portion could create aviation hazards. Impacts would not be adverse with the required mitigation.	Temporary use of helicopters to place poles may result in adverse impacts. Impacts would not be adverse with the required mitigation. In addition, as poles are within a new ROW, this

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	alternative requires additional mitigation beyond that identified for SDG&E's project.	requires additional mitigation beyond that identified for SDG&E's project.			alternative requires additional mitigation beyond that identified for SDG&E's project.
PHS-5: Emergency Response	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.	Emergency access would remain available during construction. Adverse effects would result from trenching activities along Boulder Creek Road. Impacts would not be adverse with implementation of APMs.	Emergency access would remain available during construction. Adverse effects would result from trenching activities along Boulder Creek Road. Impacts would not be adverse with implementation of APMs.	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.
PHS-6: Structural Failure	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's General Order (GO) 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Underground – no impact. As the majority of the line is underground, there is minimal risk of structure failure. Potential adverse effects of extreme weather and seismic activity for the 1-mile aboveground portion would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Underground – no impact. As the majority of the line is underground, there is minimal risk of structure failure. In addition, potential adverse effects of extreme weather and seismic activity for the 1-mile aboveground portion would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
PHS-7: Shock Hazards	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	As the majority of the line is underground, there is minimal risk of shock hazard. In addition, based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	As the majority of the line is underground, there is minimal risk of shock hazard. In addition, based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.
<i>Fire and Fuels Management (see Section D.8 for full analysis)</i>					
FF-1: Construction, Operation and Maintenance Could Start a Wildfire	Potential to ignite a wildfire due to new electric facilities and increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to new electric facilities and increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to new electric facilities and increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.
FF-2: Presence of Transmission Lines Could Start a Fire	Potential to ignite a wildfire due to new electric facilities is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to new electric facilities is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Underground - no impact. For 1-mile overhead portion, potential to ignite a wildfire due to new electric facilities is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Underground - no impact. For 1-mile overhead portion, potential to ignite a wildfire due to new electric facilities is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to new electric facilities is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.
FF-3: Reduced Firefighter Effectiveness	New poles and lines would create an obstacle during aerial firefighting. This impact would not be adverse with the required mitigation.	New poles and lines would create an obstacle during aerial firefighting. This impact would not be adverse with the required mitigation.	Underground - no impact. However, the new poles and lines for the 1-mile overhead portion would create an obstacle during aerial firefighting. This	Underground - no impact. However, the new poles and lines for the 1-mile overhead portion would create an obstacle during aerial firefighting. This	New poles and lines would create an obstacle during aerial firefighting. This impact would not be adverse with the required mitigation.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
			impact would not be adverse with the required mitigation.	impact would not be adverse with the required mitigation.	
FF-4: Introduction of Non-native Plants	Construction of new ROW and access roads would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.	Construction of new ROW and access roads would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.	Ground disturbance due to trenching would introduce non-native plants. Impact would not be adverse with the required mitigation.	Ground disturbance due to trenching would introduce non-native plants. Impact would not be adverse with the required mitigation.	Construction of new ROW along Boulder Creek Road would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.
<i>Hydrology and Water Quality (see Section D.9 for full analysis)</i>					
HYD-1 and HYD-2: Short-Term Construction Activities Would Degrade Water Resources	During short-term construction of new ROW and access roads water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	During short-term construction of new ROW and access roads water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	Undergrounding would cross numerous new surface hydrological features; therefore, impacts would not be adverse with the required mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.	Undergrounding would cross numerous new surface hydrological features therefore; impacts would not be adverse with the required mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.	During short-term construction water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.
HYD-3: Groundwater Supply	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.
HYD-4: Access Roads	Construction and long-term maintenance activities along new access roads could result in periodic	Construction and long-term maintenance activities along new access roads could result in periodic sediment	New access road is required for 1-mile overhead segment. Construction and long-term	New access road is required for 1-mile overhead segment. Construction and long-term	Construction and long-term maintenance activities along access roads could result in periodic sediment

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	sediment delivery into receiving waters. Impacts would not be adverse with the required mitigation. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626.)	delivery into receiving waters. Impacts would not be adverse with the required mitigation. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626.)	maintenance activities along new access road could result in periodic sediment delivery into receiving waters. Impacts would not be adverse with the required mitigation. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626.)	maintenance activities along new access road could result in periodic sediment delivery into receiving waters. Impacts would not be adverse with the required mitigation. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626.)	delivery into receiving waters. Impacts would not be adverse with the required mitigation. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626.)
HYD-5: Maintenance - Vegetation Management, Pesticide, and Herbicide Application	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.
<i>Land Use (see Section D.10 for full analysis)</i>					
LU-1: Temporary Disturbance Due to Construction	Development of new, longer ROW for alignment and access roads would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Development of new, longer ROW for alignment and access roads would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Temporary trenching activities in Boulder Creek Road would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Temporary trenching activities in Boulder Creek Road would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Development of new longer ROW for alignment would affect sensitive receptors. Impacts would not be adverse with the required mitigation.
LU-2: Divide an Established Community	New ROW along the periphery of the community of Pine Hills indirectly affects the quality, access, and functionality of residential land uses. Also, new property owners (Forest Service and private land	New ROW along the periphery of the community of Pine Hills indirectly affects the quality, access, and functionality of residential land uses. Impacts would not be adverse with the required mitigation. This	While undergrounding would not divide an established community, residences would be subject to potential indirect impacts to the quality, access, and functionality of residential land uses	While, undergrounding would not divide an established community, residences would be subject to potential indirect impacts to the quality, access, and functionality of residential land uses	New ROW along the periphery of the community of Pine Hills indirectly affects the quality, access, and functionality of residential land uses. Impacts would not be adverse with the required

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	owners) would be affected. Impacts would not be adverse with the required mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.	alternative requires additional mitigation beyond that identified for SDG&E's project.	associated with visual quality, noise, and public health and safety impacts because of development of a new overhead ROW. Impacts would not be adverse with the required mitigation.	associated with visual quality, noise, and public health and safety impacts because of development of a new overhead ROW. Impacts would not be adverse with the required mitigation.	mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.
LU- 3: Conflict with Applicable Land Use Plan	Development of the new ROW avoids conflicts with the forthcoming Land Management Plan (LMP) Amendment but would be inconsistent with established land use zones of the existing CNF LMP. Conflicts with the CNF LMP would be addressed as required by the National Forest Management Act and resolved under NEPA with the required LMP Amendment/mitigation.	Development of the new ROW avoids conflicts with the forthcoming LMP Amendment but would be inconsistent with established land use zones of the existing CNF LMP. Conflicts with the CNF LMP would be addressed as required by the National Forest Management Act and resolved under NEPA with the required LMP Amendment/mitigation.	Development of the new ROW avoids conflicts with the established land use zones of the existing CNF LMP and the forthcoming LMP Amendment. An encroachment permit from San Diego County would be required due to undergrounding in Boulder Creek Road. Land use conflicts would be addressed and resolved with required mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.	Development of the new ROW avoids conflicts with the established land use zones of the existing CNF LMP and the forthcoming LMP Amendment. An encroachment permit from San Diego County would be required due to undergrounding in Boulder Creek Road. Land use conflicts would be addressed and resolved with required mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.	Development of the new ROW avoids conflicts with the established land use zones of the existing CNF LMP and the forthcoming LMP Amendment. An encroachment permit from San Diego County, and new ROW from private property owners and the Inaja and Cosmit Reservation would be required due to undergrounding in Boulder Creek Road. Land use conflicts would be addressed and resolved with required mitigation. This alternative requires additional mitigation beyond that identified for SDG&E's project.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
<i>Noise (see Section D.11 for full analysis)</i>					
NOI-1 and NOI-2: Construction Noise and Vibration	Development of new longer ROW for alignment and access roads would affect sensitive noise receptors. Impacts would not be adverse with the required mitigation.	Development of new longer ROW for alignment and access roads would affect sensitive noise receptors. Impacts would not be adverse with the required mitigation.	Temporary trenching activities in Boulder Creek Road would affect sensitive noise receptors. Impacts would not be adverse with the required mitigation.	Temporary trenching activities in Boulder Creek Road would affect sensitive noise receptors. Impacts would not be adverse with the required mitigation.	Development of new longer ROW for alignment would affect sensitive noise receptors. Impacts would not be adverse with the required mitigation.
NOI-3: Corona Noise	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.	Majority of alignment would be underground; therefore, no impact.	Majority of alignment would be underground; therefore, no impact.	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.
NOI-4: Long-Term Impacts	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine inspections. Impacts would not be adverse.	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine inspections. Impacts would not be adverse.	Majority of alignment would be underground; therefore, no impact.	Majority of alignment would be underground; therefore, no impact.	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine inspections. Impacts would not be adverse.
<i>Public Services and Utilities (see Section D.12 for full analysis)</i>					
PSU-1: Effects on Fire, Municipal Water Supply and Telecommunications	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Water use would increase from SDG&E's proposed project due to greater disturbance area. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Water use would increase from SDG&E's proposed project due to greater disturbance area. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Water use would increase from SDG&E's proposed project due to greater disturbance area. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Water use would increase from SDG&E's proposed project due to greater disturbance area. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Water use would increase from SDG&E's proposed project due to greater disturbance area. Impacts would not be adverse with the required mitigation.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
	No impact to AT&T telecommunication facilities.	No impact to AT&T telecommunication facilities.	No impact to AT&T telecommunication facilities.	No impact to AT&T telecommunication facilities.	No impact to AT&T telecommunication facilities.
PSU-2: Solid Waste Disposal Facilities	Construction and operation would not have an adverse impact on solid waste disposal facilities.	Construction and operation would not have an adverse impact on solid waste disposal facilities.	Construction and operation would not have an adverse impact on solid waste disposal facilities.	Construction and operation would not have an adverse impact on solid waste disposal facilities.	Construction and operation would not have an adverse impact on solid waste disposal facilities.
PSU-3: Disruption of Electrical Service.	Electric transfers would be phased in accordance with California Independent System Operator (CAISO) requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.
<i>Recreation (see Section D.13 for full analysis)</i>					
REC-1: Reduce Access During Construction	Temporary impacts during construction to access to recreation and wilderness areas; however, with implementation of proposed APMs, impacts are not adverse.	Temporary impacts during construction to access to recreation and wilderness areas; however, with implementation of proposed APMs, impacts are not adverse.	Located primarily along Boulder Creek Road and not within recreation and wilderness areas. With implementation of proposed APMs, impacts are not adverse.	Located primarily along Boulder Creek Road and not within recreation and wilderness areas. With implementation of proposed APMs, impacts are not adverse.	Primarily along Boulder Creek Road and not within recreation and wilderness areas. With implementation of proposed APMs, impacts are not adverse.
REC-2: Project Components Reduce Access to Recreation Areas	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-5
Comparison of Environmental Effects of Federal Proposed Action for TL626 Replacement Options**

Impact	TL626 Option 1	TL626 Option 2	TL626 Option 3a	TL626 Option 3b	TL626 Option 4
REC-3: Unauthorized Access	Construction of new access roads would not be adverse with the required mitigation.	Construction of new access roads would not be adverse with the required mitigation.	Primarily located along a public roadway; however, new access road would be required along the 1 mile of new overhead ROW. Construction of new access roads would not be adverse with the required mitigation.	Primarily located along a public roadway; however, new access road would be required along the 1 mile of new overhead ROW. Construction of new roads would not be adverse with the required mitigation.	Primarily located along a public roadway; however, new access road would be required along the 1 mile of new overhead ROW. Construction of new roads would not be adverse with the required mitigation.
<i>Transportation and Traffic (see Section D.14 for full analysis)</i>					
TRANS-1 through TRANS 5: Short-term Construction Activities to Transportation Facilities, Traffic, and Roadways	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs, impacts are not adverse. Additional roadways that would be used under this alternative include Engineers Road, Penstemon Road, and Penstemon Lane.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs, impacts are not adverse. Additional roadways that would be used under this alternative include Engineers Road, Penstemon Road, and Penstemon Lane.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs and the required mitigation, impacts are not adverse. Traffic would be disrupted during construction and trenching activities for an extended time period along Boulder Creek Road.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs and the required mitigation, impacts are not adverse. Traffic would be disrupted during construction and trenching activities for an extended time period along Boulder Creek Road.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs, impacts are not adverse.

The federal preferred option among the TL626 options is Option 3a, Underground relocation in Boulder Creek road, including Option 5, reroute around Inaja Fire Memorial Site.

E.5.1.2 TL626 Replacement Alternatives Proposed by SDG&E

The TL626 replacement alternative has two options as proposed by SDG&E. The key features are summarized in Table E-6, and the environmental effects are summarized in Table E-7. The conversion of TL626 from a 69 kV to a 12 kV would be the same under both options, as would the off-grid solution proposed for the Boulder Creek substation.

Table E-6
Summary of TL626 Replacement Alternatives Proposed by SDG&E

Key Feature	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
Description	Add double circuit to TL6931 from Crestwood to Boulevard	Construct new double-circuit loop from TL625 to Suncrest Substation adjacent to the Sunrise Powerlink
Mile of OH TL on federal ¹ lands	0.9	2.9
Miles of OH TL on Private land	5.1	0.1
Miles of exclusive use road on federal land	0.9 (estimated)	0
Miles of exclusive use roads on private land	1.6 (estimated)	0

Note:

¹ Federal lands include any National Forest System lands managed by the Forest Service, Public Lands managed by the BLM, or reservation lands managed in trust by the BIA.

Table E-7
Comparison of Environmental Effects of TL626 Replacement Alternatives Proposed by SDG&E

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
<i>Visual (see Section D.2 for full analysis)</i>		
VIS-1 and VIS-2: Scenic Vista/Scenic Highway	Avoids adverse and unavoidable impacts to the Inaja Scenic Overlook. There are no recognized scenic vistas within the viewshed of the 6-mile segment. Due to the presence of existing transmission and distribution facilities in the area and because of the screening effect of intervening vegetation and topography, the reconstruction of TL6931 would not substantially affect views from scenic highways. Therefore, VIS-1 and VIS-2 impacts would not be adverse.	Avoids adverse and unavoidable impacts to the Inaja Scenic Overlook. The new 3-mile alignment would be adjacent to Sunrise Powerlink; therefore, impacts to a scenic vista would not be adverse (VIS-1). The alignment would be visible from Japatul Road, a local two-lane road included in the County of San Diego Scenic Highway System. Impacts would not be adverse with the required mitigation.
VIS-3: Visual Character	Visual contrast of slightly taller poles would not be adverse with the required mitigation	The new 3-mile alignment would be adjacent to Sunrise Powerlink. The introduction of approximately 100-foot-tall, narrow, reddish-brown steel poles alongside existing steel lattice towers would likely create noticeable form, line, and color contrast. Impacts would not be adverse with the required mitigation.

**Table E-7
Comparison of Environmental Effects of TL626 Replacement
Alternatives Proposed by SDG&E**

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
VIS-4: Glare/ Light	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina, and with APMs requiring use of non-specular conductors, glare effects would not be adverse.	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina, and with APMs requiring use of non-specular conductors, glare effects would not be adverse.
VIS-5: Scenic Integrity	The 6-mile segment of TL6931 traverses tribal and private lands. As such, the segment would not be subject to the scenery management system of the Forest Service or the visual resource management system of the BLM. Therefore, VIS-5 impacts would not be adverse.	The new 3-mile alignment would be managed according to High scenic integrity objectives. The alignment would be installed adjacent to Sunrise Powerlink; however, weathered steel poles would display a different form, line, and color than steel lattice towers and deviations in scale would be noticeable. Conflicts with the CNF LMP scenic integrity objectives would be addressed as required by the National Forest Management Act and resolved under NEPA with the required LMP Amendment/mitigation.
<i>Air Quality (see Section D.3 for full analysis)</i>		
AIR-1: Short-term Construction-Related Air Quality Impacts	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.
AIR-2: Long-term Emission Impacts	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.
AIR-3: General Conformity	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds.
AIR-4: Conflict with Land Use Plans	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.
AIR-5: Expose Sensitive Receptors	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.
<i>Biological Resources (see Section D.4 for full analysis)</i>		
BIO-1: Vegetation Loss	Construction would result in temporary and permanent vegetation loss. Impacts would not be adverse with the required mitigation.	Construction would result in temporary and permanent vegetation loss. Impacts would not be adverse with the required mitigation.
BIO-2: Loss of Preserve Areas	Impacts to Forest Service RCAs and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance	Impacts to Forest Service RCAs and riparian areas would be reduced; however, temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and

**Table E-7
Comparison of Environmental Effects of TL626 Replacement
Alternatives Proposed by SDG&E**

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
	personnel and equipment. Impacts would not be adverse with the required mitigation.	maintenance personnel and equipment in the new ROW. Impacts would not be adverse with the required mitigation.
BIO-3: Native Wildlife	Construction-related impacts of this alternative on wildlife disturbance and direct mortality would not be adverse.	Construction-related impacts of this alternative on wildlife disturbance and direct mortality would not be adverse.
BIO-4: Jurisdictional Resources	Temporary and permanent impacts to jurisdictional waters and wetlands would be adverse. Impact would not be adverse with the required mitigation.	Temporary and permanent impacts to jurisdictional waters and wetlands would be adverse. Impact would not be adverse with the required mitigation.
BIO-5: Invasive Species	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impact would not be adverse with the required mitigation.	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impact would not be adverse with the required mitigation.
BIO-6: Candidate, Sensitive, or Special-Status Species	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.
BIO-7: Conflict with Adopted Plans	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.
BIO-8: Interfere with wildlife movement/corridors	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.
<i>Cultural and Paleontological Resources (see Section D.5 for full analysis)</i>		
CUL-1: Historical Resources; CUL-2: Archaeological Resources; CUL-3: Human Remains; CUL-4: Traditional Cultural Properties; PALEO-1: Unique Paleontological Resource or Geologic Feature	Impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.	Impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.

**Table E-7
Comparison of Environmental Effects of TL626 Replacement
Alternatives Proposed by SDG&E**

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
<i>Greenhouse Gases (see Section D.6 for full analysis)</i>		
GHG-1 and GHG-2: Increase GHG Emissions	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.
GHG-3: Conflict with Applicable Plan or GHG Adopted Regulations	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse
<i>Public Health and Safety (see Section D.7 for full analysis)</i>		
PHS-1 through PHS-3: Hazardous Materials Impacts During Construction	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.
PHS-4: Flight Operations/ Aviation Hazards	Temporary use of helicopters to place poles would occur, but impacts would not be adverse with the required mitigation.	Temporary use of helicopters to place poles would occur, but impacts would not be adverse with the required mitigation.
PHS-5: Emergency Response	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with the implementation of APMs.	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.
PHS-6: Structural Failure	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.
PHS-7: Shock Hazards	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.
<i>Fire and Fuels Management (see Section D.8 for full analysis)</i>		
FF-1: Construction, Operation and Maintenance Could Start a Wildfire; FF-2: Presence of Transmission	The potential to ignite a wildfire exists with the presence of electrical facilities which is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	The potential to ignite a wildfire exists with the presence of electrical facilities which is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.

**Table E-7
Comparison of Environmental Effects of TL626 Replacement
Alternatives Proposed by SDG&E**

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
Lines Could Start a Fire		
FF-3: Reduced Firefighter Effectiveness	As this ROW would be essentially the same as currently exists, impacts would not be adverse.	Although the alignment would be adjacent to the Sunrise Powerlink, the new poles and lines would create an obstacle in a new location to be avoided during aerial firefighting. Impacts would not be adverse with the required mitigation.
FF-4: Introduction of Non-native Plants	Construction would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impacts to fire behavior would not be adverse with the required mitigation.	Construction of new ROW would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impacts to fire behavior would not be adverse with the required mitigation.
<i>Hydrology and Water Quality (see Section D.9 for full analysis)</i>		
HYD-1 and HYD-2: Short-Term Construction Activities Would Degrade Water Resources	During short-term construction, water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	During short-term construction, water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.
HYD-3: Groundwater Supply	Use of groundwater in this groundwater dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater dependent region would not be adverse with the required mitigation.
HYD-4: Access Roads	No new access roads are proposed. The area is within a predominately flat to gently sloping terrain; therefore, impacts of accelerated erosion and rills due to steep access roads are not adverse. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626 only. All other project alignments with steep access roads – C79, C442, CTL625, and TL629 – remain adverse and unavoidable).	Due to rugged terrain, helicopters will be used during construction and operations; therefore, no impact to roads would occur. (Reduces Cedar Creek riparian area unavoidable adverse impacts associated with TL626 only. All other project alignments with steep access roads – C79, C442, CTL625, and TL629 – remain adverse and unavoidable).
HYD-5: Maintenance - Vegetation Management, Pesticide, and Herbicide Application	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.
<i>Land Use (see Section D.10 for full analysis)</i>		
LU-1: Temporary Disturbance Due to Construction	Sensitive receptors would be exposed to temporary construction activities. Impacts would not be adverse with the required mitigation.	Development of new ROW would affect sensitive receptors. Impacts would not be adverse with the required mitigation.

**Table E-7
Comparison of Environmental Effects of TL626 Replacement
Alternatives Proposed by SDG&E**

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
LU-2: Divide an Established Community	As the existing ROW divides an established community, the replacement of poles would not further divide the community; therefore, no impact would occur.	As the alignment would be adjacent to the Sunrise Powerlink, the new alignment would not further divide an established community; therefore, no impact would occur.
LU-3: Conflict with Applicable Land Use Plan	The alignment is consistent with relevant policies in the San Diego County General Plan, the Mountain Empire Subregional Plan and Boulevard Subregional Planning Area plans, such as maintaining unobstructed access to power lines, review by SDG&E of encroachments to facilities or alteration of drainage patterns; and the use of existing ROWs for development of new transmission lines. Therefore, this impact would not be adverse.	As the alignment would be adjacent to the Sunrise Powerlink, it is consistent with CNF LMP direction to co-locate facilities within established corridors. In addition, the TL625 loop-in would traverse the development area interface (DAI) and back country motorized use restricted (BCMUR) land use zones of the CNF LMP. Developed facilities are considered suitable uses in the DAI land use zone and are suitable by exception in the BCMUR land use zone. Due to the proximity of the Sunrise Powerlink, conflicts with the established land use zones of the CNF LMP would not be anticipated to occur.
<i>Noise (see Section D.11 for full analysis)</i>		
NOI-1 and NOI-2: Construction Noise and Vibration	Construction activities would affect approximately 20 sensitive noise receptors within 200 feet of existing ROW. Impacts would not be adverse with the required mitigation.	Construction activities, including helicopter use for installation of alignment, would affect sensitive noise receptors (500 feet from new alignment). Impacts would not be adverse with the required mitigation.
NOI-3: Corona Noise	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.
NOI-4: Long-Term Impacts	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine inspections. Impacts would not be adverse.	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine helicopter inspections. Impacts would not be adverse.
<i>Public Services and Utilities (see Section D.12 for full analysis)</i>		
PSU-1: Effects on Fire, Municipal Water Supply and Telecommunications.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Similar amounts of water would be required as SDG&E's proposed project. AT&T and SDG&E would be required to coordinate co-location of telecommunications services. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Similar amounts of water would be required as SDG&E's proposed project and AT&T and SDG&E would be required to coordinate co-location of telecommunications services. Impacts would not be adverse with the required mitigation.
PSU-2: Solid Waste Disposal Facilities	Construction and operation would not have an adverse impact on solid waste disposal facilities.	Construction and operation would not have an adverse impact on solid waste disposal facilities
PSU-3: Disruption of Electrical Service.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.

Table E-7
Comparison of Environmental Effects of TL626 Replacement
Alternatives Proposed by SDG&E

Impact	Option 1 (TL6931)	Option 2 (TL625 Loop-in)
<i>Recreation (see Section D.13 for full analysis)</i>		
REC-1 and REC-2: Reduce Access During Construction and Presence of Project Components	No campgrounds or recreational resources are located within the immediate vicinity; therefore, impacts due to a reduction to access or visitation of recreation areas, and precluding access to recreation areas would not be adverse.	No campgrounds or recreational resources are located within the immediate vicinity; therefore, impacts due to a reduction to access or visitation of recreation areas, and precluding access to recreation areas would not be adverse.
REC-3: Unauthorized Access (Class II)	Removal of TL626 and associated access roads would avoid identified unauthorized access impacts associated with TL626. The TL6931 alignment is located along public and private roadways, and no new access would be required; therefore, no impacts would occur.	Removal of TL626 and associated access roads would avoid identified unauthorized access impacts associated with TL626. Due to rugged terrain of the TL625 Loop-in alignment and no new access roads proposed, no impacts would occur.
<i>Transportation and Traffic (see Section D.14 for full analysis)</i>		
TRANS-1 through TRANS 5: Short-term Construction Activities to Transportation Facilities, Traffic and Roadways.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs impacts are not adverse. Roadways that would be used under this alternative are McCain Valley Road, Old Highway 80, and Highway 94. Roadways that would be spanned by this alignment include Live Oak Springs Road, Campo Road (Highway 94), Tierra Del Sol Road, Jewell Valley Road, and McCain Lane.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs impacts are not adverse. Roadways that would be used under this alternative include I-8, Alpine Boulevard, Japatul Valley Road, Lyons Valley Road, and Japatul Road. In addition, the nearest airport is a privately owned airport: the On the Rocks Airport – no impact would occur to the airport as the alignment is adjacent to the existing Sunrise Powerlink.

The federal preferred option among the TL626 replacement alternatives proposed by SDG&E is Option 1, upgrade of TL6931, combined with the off-grid solution for the Boulder Creek substation.

E.5.1.3 C157 Reroute Options

Forest Service Proposed Action

The Forest Service Proposed Action for C157 reroute has two options. The key features are summarized in Table E-8, and the environmental effects are summarized in Table E-9.

**Table E-8
Summary of Forest Service Proposed Action for C157 Reroute Options**

Key Feature	Option 1	Option 2
		<i>Reroute approximately 2 miles of overhead to the south between Pine Creek and Hauser Wilderness areas</i>
Mile of OH C on federal ¹ lands	1.1	1.1
Miles of OH C on Private land	City Land: 0.9	City Land: 0.8

Note:

¹ Federal lands include any National Forest System lands managed by the Forest Service, Public Lands managed by the BLM, or reservation lands managed in trust by the BIA.

**Table E-9
Comparison of Environmental Effects of C157 Reroute Options**

Impact No.	Option 1 (Forest Service Route)	Option 2 (City of San Diego Route)
<i>Visual (see Section D.2 for full analysis)</i>		
VIS-1 and VIS-2: Scenic Vista/Scenic Highway	The realigned/alterd route would not be visible from a scenic vista or eligible or designated scenic roadways. Therefore, impacts would not be adverse.	The realigned/alterd route would not be visible from a scenic vista or eligible or designated scenic roadways. Therefore, impacts would not be adverse.
VIS-3: Visual Character	Relatively weak visual contrast as viewed from Skye Valley Road and KOP 20; therefore, impacts would not be adverse.	Relatively weak visual contrast as viewed from Skye Valley Road and KOP 20; therefore, impacts would not be adverse.
VIS-4: Glare/Light	There would be no nighttime construction; therefore, no nighttime lighting impacts would occur. Pole structures would be a weathered patina and with APMs requiring use of non-specular conductors, glare effects would not be adverse.	There would be no nighttime construction; therefore, no nighttime lighting impacts would occur. Pole structures would be a weathered patina and with APMs requiring use of non-specular conductors, glare effects would not be adverse.
VIS-5: Scenic Integrity	The relocated segment would avoid CNF lands managed according to Very High scenic integrity objectives (Pine Creek Wilderness and Hauser Wilderness). This segment would be located on lands managed by the Forest Service according to High scenic integrity objectives. With the required LMP Amendment/mitigation, conflicts with the High scenic integrity objective of the CNF LMP would be allowed and resolved as required by the National Forest Management Act.	The relocated segment would avoid CNF lands managed according to Very High scenic integrity objectives (Pine Creek Wilderness and Hauser Wilderness). This segment would be located on lands managed by the Forest Service according to high scenic integrity objectives. With the required LMP Amendment/mitigation, conflicts with the High scenic integrity objective of the CNF LMP would be allowed and resolved as required by the National Forest Management Act.
<i>Air Quality (see Section D.3 for full analysis)</i>		
AIR-1: Short-term Construction-Related Air Quality Impacts	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-9
Comparison of Environmental Effects of C157 Reroute Options**

Impact No.	Option 1 (Forest Service Route)	Option 2 (City of San Diego Route)
AIR-2: Long-term Emission Impacts	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.
AIR-3: General Conformity	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds.
AIR-4: Conflict with Land Use Plans	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.
AIR-5: Expose Sensitive Receptors	During construction and operation, substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation, substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.
<i>Biological Resources (see Section D.4 for full analysis)</i>		
BIO-1: Vegetation Loss	Construction would result in 1.07 acres of temporary impacts and 0.01 acre of permanent impacts. Impacts would not be adverse with the required mitigation.	Slight less temporary and permanent impacts than Option 1 due to reduced aerial and ground footprint. Impacts would not be adverse with the required mitigation.
BIO-2: Loss of Preserve Areas	Temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts from erosion, sedimentation, fire risk, use of herbicides and/or introduction of non-native seeds to native communities would result from ground disturbance and operations and maintenance personnel and equipment. Impacts would not be adverse with the required mitigation.
BIO-3: Native Wildlife	Construction-related impacts of this alternative on wildlife disturbance and direct mortality would not be adverse.	Construction-related impacts of this alternative on wildlife disturbance and direct mortality would not be adverse.
BIO-4: Jurisdictional Resources	Temporary and permanent impacts to jurisdictional waters and wetlands would be adverse. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts to jurisdictional waters and wetlands would be adverse. Impacts would not be adverse with the required mitigation.
BIO-5: Invasive Species	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse with the required mitigation.
BIO-6: Candidate, Sensitive, or Special-Status Species	Two poles are located within USFWS-designated arroyo toad critical habitat resulting in approximately 0.14 acre of temporary impacts and less than 0.01 acre of permanent impacts to USFWS arroyo toad critical habitat. Impacts would not be adverse with the required mitigation.	Two poles are located within USFWS-designated arroyo toad critical habitat resulting in approximately 0.14 acre of temporary impacts and less than 0.01 acre of permanent impacts to USFWS arroyo toad critical habitat. Impacts would not be adverse with the required mitigation.
BIO-7: Conflict with Adopted Plans	Conflicts with the City of San Diego draft City Public Utilities Department's Land Management Plan, which designates this area as the highest priority for conservation. Therefore, a conflict with the suitability of uses within a designated conservation area exists. This would not be adverse with the selection of Option 2.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts are not adverse.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-9
Comparison of Environmental Effects of C157 Reroute Options**

Impact No.	Option 1 (Forest Service Route)	Option 2 (City of San Diego Route)
BIO-8: Interfere with Wildlife Movement/Corridors	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts are not adverse.
<i>Cultural and Paleontological Resources (see Section D.5 for full analysis)</i>		
CUL-1: Historical Resources; CUL-2: Archaeological Resources; CUL-3: Human Remains; CUL-4: Traditional Cultural Properties; PALEO-1: Unique Paleontological Resource or Geologic Feature	Impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.	Impacts would be adverse but mitigated through avoidance in project siting or through implementation of APMs and mitigation measures.
<i>Greenhouse Gases (see Section D.6 for full analysis)</i>		
GHG-1 and GHG-2: Increase GHG emissions	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.
GHG-3: Conflict with applicable plan or GHG adopted regulations	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse.	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse.
<i>Public Health and Safety (see Section D.7 for full analysis)</i>		
PHS-1 through PHS-3: Hazardous Materials Impacts During Construction	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	Use of petroleum products and herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.
PHS-4: Flight Operations/Aviation Hazards	Temporary use of helicopters to place poles would occur, but impacts would not be adverse with the required mitigation. In addition, as an approximately 2-mile segment is within a new ROW, this alternative requires additional mitigation beyond that identified for SDG&E's project.	Temporary use of helicopters to place poles would occur, but impacts would not be adverse with the required mitigation. In addition, as an approximately 2-mile segment is within a new ROW, this alternative requires additional mitigation beyond that identified for SDG&E's project.
PHS-5: Emergency Response	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-9
Comparison of Environmental Effects of C157 Reroute Options**

Impact No.	Option 1 (Forest Service Route)	Option 2 (City of San Diego Route)
PHS-6: Structural Failure	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.
PHS-7: Shock Hazards	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	Based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.
<i>Fire and Fuels Management (see Section D.8 for full analysis)</i>		
FF-1: Construction, Operation and Maintenance Could Start a Wildfire; FF-2: Presence of Transmission Lines Could Start a Fire	The potential to ignite a wildfire exists with the presence of electrical facilities which is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	The potential to ignite a wildfire exists with the presence of electrical facilities which is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.
FF-3: Reduced Firefighter Effectiveness	Although this ROW would be located in essentially the same vicinity as currently exists, the new poles and lines would create an obstacle in a new location to be avoided during aerial firefighting, but would remove the existing obstacle. Impacts would not be adverse with the required mitigation.	Although this ROW would be located in essentially the same vicinity as currently exists, the new poles and lines would create an obstacle in a new location to be avoided during aerial firefighting, but would remove the existing obstacle. Impacts would not be adverse with the required mitigation.
FF-4: Introduction of Non-native Plants	Construction would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.	Construction of new ROW would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.
<i>Hydrology and Water Quality (see Section D.9 for full analysis)</i>		
HYD-1 and HYD-2: Short-term Construction Activities Would Degrade Water Resources	During short-term construction, water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	During short-term construction, water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.
HYD-3: Groundwater Supply	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.
HYD-4: Access Roads	No exclusive use access roads are along the alignment; therefore, no impacts would occur for this portion of SDG&E proposed project.	No exclusive use access roads are along the alignment; therefore, no impacts would occur for this portion of SDG&E proposed project.
HYD-5: Maintenance -	Impacts as a result of vegetation management and chemical applications would not be adverse with the	Impacts as a result of vegetation management and chemical applications would not be adverse with

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-9
Comparison of Environmental Effects of C157 Reroute Options**

Impact No.	Option 1 (Forest Service Route)	Option 2 (City of San Diego Route)
Vegetation Management, Pesticide, and Herbicide Application	required mitigation.	the required mitigation.
<i>Land Use (see Section D.10 for full analysis)</i>		
LU-1: Temporary Disturbance Due to Construction	Sensitive receptors would be exposed to temporary construction activities. Impacts would not be adverse with the required mitigation.	Sensitive receptors would be exposed to temporary construction activities. Impacts would not be adverse with the required mitigation.
LU-2: Divide an Established Community	The shift in the alignment approximately 0.25 mile south from the existing alignment would not divide an established community, and no impact would occur.	The shift in the alignment approximately 0.25 mile south from the existing alignment would not divide an established community, and no impact would occur.
LU- 3: Conflict with Applicable Land Use Plan	The alignment would comply with the provisions of the Wilderness Act of 1964 (avoids the adverse impact of SDG&E's proposed project) and would avoid the Existing Wilderness land use zone of the CNF LMP. However, it would be relocated within an area that the City of San Diego has ranked as highest priority for conservation in the draft City Public Utilities Department's LMP. A conflict with the City's conservation area is an adverse impact. This conflict would not be adverse with the selection of Option 2.	The alignment would comply with the provisions of the Wilderness Act of 1964 (avoids the adverse impact of SDG&E's proposed project) and would avoid the Existing Wilderness land use zone of the CNF LMP. It also avoids impacts to the City's draft LMP. Impacts would not be adverse.
<i>Noise (see Section D.11 for full analysis)</i>		
NOI-1 and NOI-2: Construction Noise and Vibration	Development of this alignment would affect a minimal number of sensitive noise receptors. Impacts would not be adverse with the required mitigation.	Development of this alignment would affect a minimal number of sensitive noise receptors. Impacts would not be adverse with the required mitigation.
NOI-3: Corona Noise	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.	Corona noise level below the San Diego County threshold; therefore, impacts would not be adverse.
NOI-4: Long- term Impacts	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine inspections. Impacts would not be adverse.	Sensitive noise receptors may experience periodic, but temporary, noise increase due to routine helicopter inspections. Impacts would not be adverse.
<i>Public Services and Utilities (see Section D.12 for full analysis)</i>		
PSU-1: Effects on Fire, Municipal Water Supply and Tele-communications	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Similar amounts of water would be required as SDG&E's proposed project. AT&T and SDG&E would be required to coordinate co-location of telecommunications services. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Similar amounts of water would be required as SDG&E's proposed project and AT&T and SDG&E would be required to coordinate co-location of telecommunications services. Impacts would not be adverse with the required mitigation.

**Table E-9
Comparison of Environmental Effects of C157 Reroute Options**

Impact No.	Option 1 (Forest Service Route)	Option 2 (City of San Diego Route)
PSU-2: Solid Waste Disposal Facilities	Construction and operation would not have an adverse impact on solid waste disposal facilities.	Construction and operation would not have an adverse impact on solid waste disposal facilities.
PSU-3: Disruption of Electrical Service	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.
<i>Recreation (see Section D.13 for full analysis)</i>		
REC-1: Reduce Access During Construction	There are no established trailheads or parking areas in the vicinity in order to access the wilderness areas; therefore, no reduction to access or visitation of recreation areas would occur.	There are no established trailheads or parking areas in the vicinity in order to access the wilderness areas; therefore, no reduction to access or visitation of recreation areas would occur.
REC-2: Project Components Reduce Access to Recreation Areas	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.
REC-3: Unauthorized Access (Class II)	The alignment is located along public and private roadways, and no new access would be required; therefore, no adverse impacts resulting from unauthorized access would occur.	The alignment is located along public and private roadways, and no new access would be required; therefore, no adverse impacts resulting from unauthorized access would occur.
<i>Transportation and Traffic (see Section D.14 for full analysis)</i>		
TRANS-1 through TRANS 5: Short-term Construction Activities to Transportation Facilities, Traffic, and Roadways	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs, impacts are not adverse.	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs, impacts are not adverse.

The federal preferred option among the C157 Reroute Options is Option 2, the City of San Diego route.

E.5.2 NEPA Comparison of Alternatives

The key features of the alternatives are summarized in Table E-10. The environmental effects of the alternatives are summarized by resource area in Table E-11.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-10
Key Features of the Alternatives**

Key Feature	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Project
	<i>The project as proposed by SDG&E in their MSUP/PTC application.</i>	<i>The federal proposed action using the preferred options.</i>	<i>The proposed project without access on steeper roads.</i>	<i>The federal preferred option for replacement of TL626 (describe)</i>	<i>No change in existing facilities, existing permits issued on annual basis (does not preclude individual pole replacements under O&M).</i>
Mile of OH electric lines on federal ¹ lands	95.5	80.1	95.9	82.6	100.6
Miles of OH electric lines on Private land ²	Water Districts: 9.6 Private: 64.6 State: 1.5 City/County/School: 4.3	Water Districts: 9.6 Private: 65.1 State: 1.5 City/County/School: 4.3	Water Districts: 9.6 Private: 63.1 State: 1.5 City/County/School: 4.3	Water Districts: 9.6 Private: 59.4 State: 1.3 City/County/School: 4.0	Water Districts: 9.6 Private: 64.6 State: 1.5 City/County/School: 4.3
Mile of UG electric lines on federal lands	12	30.5	12.0	12.3	3.4
Miles of UG electric lines on Private land ²	Private: 5.5 State: 2.8 School: 0.07	Private: 12.7 State: 2.8 School: 0.07	Private: 5.5 State: 2.8 School: 0.07	Private: 5.5 State: 2.8 School: 0.07	Private: 0 State: 0 School: 0
Miles of exclusive use road on NFS land	34.4	32.2	23.9	28.4	47.5

Note:

¹ Federal lands include any National Forest System lands managed by the Forest Service, Public Lands managed by the BLM, or reservation lands managed in trust by the BIA and includes distribution and transmission lines included in the MSUP and PTC.

² This category includes the circuits that are part of the PTC application

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
Impact	<i>The project as proposed by SDG&E in their MSUP/PTC application.</i>	<i>The federal proposed action using the TL626 options 3a and 5, C157 Option 2, and undergrounding of C440 within the Mt. Laguna Recreation Area.</i>	<i>The proposed project without access on steeper roads.</i>	<i>The federal preferred option for replacement of TL626 using the TL6931 upgrade and Boulder Creek off-grid solution.</i>	<i>No permits issued for CNF-managed lands. SDG&E required to remove the existing electric lines and facilities on CNF-managed lands and develop additional electrical service upgrades elsewhere</i>	<i>No change in existing facilities, existing permits issued on annual basis (does not preclude individual pole replacements under O&M).</i>
<i>Visual (see Section D.2 for full analysis)</i>						
VIS-1: Scenic Vista	Impacts to the Inaja scenic overlook by the TL626 upgrades would be adverse and unavoidable. Views from the Henshaw Scenic Vista would not be adversely impacted.	Impacts to the Inaja scenic overlook by the TL626 upgrades would be enhanced by relocating the line further up-river. Views from the Henshaw Scenic Vista would not be adversely impacted.	Impacts to the Inaja scenic overlook by the TL626 upgrades would be adverse and unavoidable. Views from the Henshaw Scenic Vista would not be adversely impacted	Impacts to the Inaja scenic overlook by the TL626 replacement would be enhanced by removing the line from the area. Views from the Henshaw Scenic Vista would not be adversely impacted	Following restoration activities, impacts on CNF-managed lands would be reduced with removal of facilities; however, development of additional power lines in conformance with CAISO requirements and/or alternative means of delivering electrical service elsewhere could have potential adverse effects.	Impacts resulting from SDG&E's proposed project would not occur. However, the existing impacts to the Inaja scenic overlook and lands traversed by existing infrastructure (transmission and distribution towers, wires, and access roads) would remain.
VIS-2: Scenic Highway	Impacts related to C440 would not be adverse with required mitigation. Views to all other overhead segments would be screened by existing vegetation and topography; therefore, impacts would not be	Undergrounding C440 within the Laguna Mountain Recreation Area would enhance the overall scenic quality of the area, including views from the scenic highway.	Views from project area scenic highways are not visible to the overland access roads to be removed. Views to all other overhead segments would be screened by existing vegetation and	Impacts related to C440 would not be adverse with required mitigation. Views to all other overhead segments would be screened by existing vegetation and	See No Action VIS-1	See No Project VIS-1

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	adverse.		topography; therefore, impacts would not be adverse.	topography; therefore, impacts would not be adverse		
VIS-3: Visual Character	Noticeable visual contrast between replacement and existing poles would occur at a limited number of locations (see Table D.2-10). Impacts at these locations would not be adverse with the required mitigation. All other locations would not be adverse (see Table D.2-10).	Noticeable visual contrast between replacement and existing poles would occur at a limited number of locations (see Table D.2-10). Impacts at these locations would not be adverse with the required mitigation. Other locations would not be adverse (see Table D.2-10). Visual character within the La Jolla Reservation would be enhanced.	Removal of certain segments of access roads would reduce and avoid visual character impacts. Impacts would not be adverse.	Noticeable visual contrast between replacement and existing poles would be eliminated for areas associated with TL626. The remaining impacts would be similar to SDG&E's proposed action (see Table D.2-10).	See No Action VIS-1	See No Project VIS-1
VIS-4: Glare/Light	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina and with APMs requiring use of non-specular	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina and with APMs	No impact due to road removal. Overall project effects would remain the same as SDG&E's proposed project (not adverse).	Nighttime construction may occur but is not adverse with implementation of APMs. Pole structures would be a weathered patina	See No Action VIS-1	See No Project VIS-1

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	conductors, glare effects would not be adverse.	requiring use of non-specular conductors, glare effects would not be adverse.		and with APMs requiring use of non-specular conductors, glare effects would not be adverse.		
VIS-5: Scenic Integrity	Portions of TL626 and C157 would not be consistent with the CNF LMP, and would require a project specific plan amendment. All other alignments would be consistent. Portions of TL625, TL629, and TL6923 on BLM lands are in VRM Class III – effects would not be adverse.	Portions of TL626 and C157 would not be consistent with the CNF LMP, and would require a project specific plan amendment. All other alignments would be consistent. Portions of TL625, TL629, and TL6923 on BLM lands are in VRM Class III – effects would not be adverse	No impact due to road removal. However, overall project effects would remain the same as SDG&E's proposed project.	Portions of C157 would not be consistent with the CNF LMP, and would require a project specific plan amendment. Conflicts with the LMP around the Inaja memorial would be eliminated by replacement of the line. All other alignments would be consistent. Portions of TL625, TL629, and TL6923 on BLM lands are in VRM Class III – effects would not be adverse	See No Action VIS-1	See No Project VIS-1
<i>Air Quality (see Section D.3 for full analysis)</i>						
AIR-1: Short-term Construction-	Short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions	Short-term construction-related VOC, NO _x , CO, and	Short-term construction-related VOC, NO _x , CO, and	Short-term construction-related VOC, NO _x , CO, and	Removing the electric lines from the National Forest would avoid some of the	Would eliminate all identified air emissions and associated air

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
Related Air Quality Impacts	would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	construction-related emissions and associated impacts; however, with restoration activities and replacement of these in-kind facilities elsewhere, short-term construction-related VOC, NO _x , CO, and PM _{2.5} air emissions would exceed daily thresholds and remain adverse with mitigation; other short-term air quality impacts would not be adverse with the required mitigation.	quality impacts associated with construction of SDG&E's proposed project including Impact AIR-1 Class I impacts. However, the existing conditions, including routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks would continue based on the requirements of the existing permits.
AIR-2: Long-term Emission Impacts	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	Long-term emission impacts would not be adverse.	See No Project AIR-1
AIR-3: General Conformity	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds	Emissions would be below de minimus thresholds.	Emissions would be below de minimus thresholds	Emissions would be below de minimus thresholds.	See No Project AIR-1
AIR-4: Conflict with Land Use Plans	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	There would be no conflict with or obstruction of implementation of the applicable air quality plan; therefore, no impacts would occur.	See No Project AIR-1

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
AIR-5: Expose Sensitive Receptors	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	Since in remote areas, there would be no adverse impact to sensitive receptors during road removal activities.	During construction and operation substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time.	During construction activities and operation of in-kind replacement facilities outside the National Forest, substantial pollutant concentrations would not be adverse as activities would not occur in any one place for an extended period of time	See No Project AIR-1
<i>Biological Resources (see Section D.4 for full analysis)</i>						
BIO-1: Vegetation Loss	Construction would temporarily impact 11 sensitive vegetation communities (157.6 acres) and permanently impact 9 sensitive vegetation communities (0.6 acre; see table D.4-6). Impacts would not be adverse with the required mitigation.	Construction would temporarily impact 11 sensitive vegetation communities (157.6 acres) and permanently impact 9 sensitive vegetation communities (0.6 acre; see table D.4-6). Implementing Option 3a for TL626 and restoring the existing TL626 alignment will result in a net gain in vegetative cover. Impacts would not be adverse with the required mitigation.	Minimal vegetation loss would occur during grading activities as access roads to be removed are existing. Impacts would not be adverse with the required mitigation. Long-term impacts would be beneficial as removed access roads would be restored to their natural habitat.	Replacing TL626 by upgrading TL6931 will result in a net gain of vegetation cover when the existing TL626 alignment is restored. All other impacts will be similar to SDG&E's proposed action.	Removal of the electric lines and restoration activities within the National Forest along with the development of in-kind replacement facilities in conformance with CAISO requirements and/or alternative means of delivering electrical service elsewhere would increase the overall biological resource impacts as it is anticipated that construction of replacement facilities would require new ROW resulting in a greater disturbance area. Impacts would not be adverse with the required mitigation.	Impacts resulting from SDG&E's proposed project would not occur. However, the existing conditions, including routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks would continue based on the requirements of the existing permits.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
BIO-2: Loss of Preserve Areas	Construction would temporarily impact 223.6 acres and permanently impact 0.7 acres (see Table D.4-7). Impacts would not be adverse as SDG&E is proposing work within an existing ROW. Construction would temporarily impact 8.8 acres and permanently impact <0.1 Forest Service RCA's (see Table D.4-8). Impacts would not be adverse with the required mitigation.	Impacts would be similar to SDG&E's proposed action, and not adverse with mitigation.	Construction would temporarily impact RCAs along these roads. Once access roads are restored impacts would be reduced. Impacts would not be adverse with the required mitigation.	Impacts would be similar to SDG&E's proposed action, and not adverse with mitigation.	See No Action BIO-1	See No Project BIO-1.
BIO-3: Native Wildlife	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status species, would not be	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such disturbance or mortality affects special-status	Although wildlife would be temporarily displaced or may avoid the area immediately surrounding the construction, construction-related disturbance to and/or mortality of wildlife, except where such	See No Action BIO-1	See No Project BIO-1.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	adverse.	mortality affects special-status species, would not be adverse	species, would not be adverse.	disturbance or mortality affects special-status species, would not be adverse		
BIO-4: Jurisdictional Resources	Temporary and permanent impacts to jurisdictional waters and wetlands would occur (see Tables D.4-9 through D.4-11). Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts to jurisdictional waters and wetlands would occur (see Tables D.4-9 through D.4-11). For Option 3a, temporary impacts are greater due to an increased potential to impact hydrological features. Impacts would not be adverse with the required mitigation.	Temporary impacts to jurisdictional waters and wetlands would not be adverse with the required mitigation. Following road removal, impacts to wetlands in these areas would not be adverse.	Temporary and permanent impacts to jurisdictional waters and wetlands would occur (see Tables D.4-9 through D.4-11). Impacts would not be adverse with the required mitigation.	See No Action BIO-1	See No Project BIO-1.
BIO-5: Invasive Species	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance occurs. Impacts would not be adverse with the	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance occurs. Impacts would not be	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance in new ROW occurs. Impacts would not be adverse	Temporary and permanent impacts would occur due to the potential for introduction of invasive, non-native, and noxious plant species where ground disturbance occurs. Impacts	See No Action BIO-1	See No Project BIO-1.

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	required mitigation.	adverse with the required mitigation.	with the required mitigation.	would not be adverse with the required mitigation.		
BIO-6: Candidate, Sensitive, and Special-Status Species	Temporary and permanent impacts to candidate, sensitive, or special-status species (see Table D.4-12) would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would occur (see Table D.4-12). Implementing TL626 Option 5 may potentially reduce long-term direct collision-related impacts to golden eagles. Additionally, no biological impacts are expected as a result of Option 5 (as activities would occur in an existing parking lot). Implementing C157 Option 2 would impact arroyo toad critical habitat. Impacts would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species would not be adverse with the required mitigation.	Temporary and permanent impacts to candidate, sensitive, or special-status species (see Table D.4-12) would not be adverse with the required mitigation.	See No Action BIO-1	See No Project BIO-1.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
BIO-7: Conflict with Adopted Plans	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts would not be adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts would not be adverse	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts would not be adverse.	There would be no conflict with any provisions of an adopted HCP, NCCP, or other approved conservation plan; therefore, impacts would not be adverse	See No Action BIO-1	See No Project BIO-1.
BIO-8: Interfere with wildlife movement/corridors	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts would not be adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts would not be adverse	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts would not be adverse.	No new barriers that would impede the local or regional movement of wildlife would be constructed; therefore, impacts would not be adverse	See No Action BIO-1	See No Project BIO-1.
<i>Cultural and Paleontological Resources (see Section D.5 for full analysis)</i>						
CUL-1: Historical Resources; CUL-2: Archaeological Resources; CUL-3: Human Remains; CUL-4: Traditional Cultural	Impacts would not be adverse with mitigation, primarily through avoidance in project siting or through implementation of APMs mitigation measures, and implementation of the Programmatic Agreement on federal	Impacts would not be adverse with mitigation, primarily through avoidance in project siting or through implementation of APMs mitigation measures, and implementation of the	Impacts would not be adverse with mitigation, primarily through avoidance in project siting or through implementation of the	Impacts would not be adverse with mitigation, primarily through avoidance in project siting or through implementation of	Removal of the electric lines and restoration activities within the National Forest along with the development of in-kind replacement facilities in conformance with CAISO requirements and/or alternative means of delivering electrical service	Impacts resulting from SDG&E's proposed project would not occur. However, the existing conditions, including routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
Properties; PALEO-1: Unique Paleontological Resource or Geologic Feature	lands.	Programmatic Agreement on federal lands.	Programmatic Agreement on federal lands.	the Programmatic Agreement on federal lands.	elsewhere would increase the overall cultural resource impacts as it is anticipated that construction of replacement facilities would require new ROW resulting in a greater disturbance area. Impacts would not be adverse with the required mitigation.	maintenance tasks would continue based on the requirements of the existing permits.
<i>Greenhouse Gases (see Section D.6 for full analysis)</i>						
GHG-1 and GHG-2: Increase GHG Emissions	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse	Temporary increase in GHG emissions would be below GHG threshold. Construction and maintenance impacts would not be adverse.	Temporary increase in GHG emissions would be below GHG threshold. Construction and operation impacts would not be adverse	Construction (removal, restoration, and replacement of in-kind facilities) and operation impacts of replacement in-kind facilities would not be adverse.	Would eliminate all identified GHG impacts associated with construction of SDG&E's proposed project.
GHG-3: Conflict with Applicable Plan or GHG Adopted Regulations	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse.	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse.	No impact.	As construction activities would not meet or exceed the CAP screening criteria, impacts would not be adverse.	Construction activities for removal, restoration, and replacement of in-kind facilities would not meet or exceed the CAP screening criteria; therefore, impacts would not be adverse.	No impact.
<i>Public Health and Safety (see Section D.7 for full analysis)</i>						
PHS-1 through PHS-3:	Use of petroleum products and herbicides	Use of petroleum products and	Use of petroleum products and	Use of petroleum products and	Use of petroleum products and herbicides as well as	Impacts resulting from SDG&E's proposed

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
Hazardous Materials Impacts During Construction	as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	herbicides, and the potential for accidental spills during construction and maintenance would not be adverse with the required mitigation.	herbicides as well as the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	the potential for accidental spills during construction, operations, and maintenance would not be adverse with the required mitigation.	project would not occur. However, the existing conditions, including routine and periodic equipment testing, pole brushing, herbicide application, and other related ongoing maintenance tasks would continue based on the requirements of the existing permits.
PHS-4: Flight Operations/Aviation Hazards	Temporary use of helicopters to place poles may result in adverse impacts. Impacts would not be adverse with the required mitigation.	Temporary use of helicopters to place poles may result in adverse impacts. Impacts would not be adverse with the required mitigation.	Helicopter use could increase during construction and operations in the areas where access roads have been removed. Impacts would not be adverse with the required mitigation.	Temporary use of helicopters to place poles may result in adverse impacts. Impacts would not be adverse with the required mitigation.	Temporary use of helicopters to remove poles within the National Forest and replace poles elsewhere may result in adverse impacts. Impacts would not be adverse with the required mitigation.	Impacts resulting from SDG&E's proposed project would not occur. However, the existing conditions, including helicopter inspections, would continue based on the requirements of the existing permits.
PHS-5: Emergency Response	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites.	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access	Since access roads are in remote areas, there would be no impact to emergency access. For remainder of project, emergency access would remain available during	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access	Emergency access would remain available during construction. Indirect effects would result from construction vehicles using roadways to access facilities during removal and restoration activities as well	Impacts resulting from SDG&E's proposed project would not occur.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	Impacts would not be adverse with implementation of APMs.	pole construction sites. Impacts would not be adverse with implementation of APMs.	construction. Indirect effects would result from construction vehicles using roadways to access pole construction sites. Impacts would not be adverse with implementation of APMs.	pole construction sites. Impacts would not be adverse with implementation of APMs.	as construction of facilities outside the National Forest Impacts would not be adverse with implementation of APMs.	
PHS-6: Structural Failure	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would remain for the power and distribution lines under this alternative. Impacts would not be adverse with the required mitigation.	Potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Following pole removal on CNF-managed lands, there would be no impact. For in-kind replacement facilities outside the National Forest, potential adverse effects of extreme weather and seismic activity would be mitigated by the conservative nature of the specifications in CPUC's GO 95 and mitigation requiring geotechnical investigation. Impacts would not be adverse with the required mitigation.	Impacts resulting from SDG&E's proposed project would not occur. However, the existing conditions, including pole inspections and replacements on an individual basis, would continue based on the requirements of the existing permits.
PHS-7: Shock Hazards	Based on the conservative nature of the specifications in CPUC's GO 95,	Based on the conservative nature of the specifications in CPUC's GO 95,	Potential adverse effects would remain for the power and distribution lines;	Based on the conservative nature of the specifications in CPUC's GO 95,	Following pole removal on CNF-managed lands there would be no impact. For in-kind replacement facilities	Impacts resulting from construction of SDG&E's proposed project would not occur.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	operation and maintenance would not pose an adverse safety hazard.	operation and maintenance would not pose an adverse safety hazard.	however, based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	operation and maintenance would not pose an adverse safety hazard.	outside the National Forest, the potential exists; however, based on the conservative nature of the specifications in CPUC's GO 95, operation and maintenance would not pose an adverse safety hazard.	
<i>Fire and Fuels Management (see Section D.8 for full analysis)</i>						
FF-1: Construction, Operation, and Maintenance Could Start a Wildfire	Potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Following pole removal on CNF-managed lands, impacts would not be adverse. During construction on CNF-managed lands and for in-kind replacement facilities outside the National Forest, the potential to ignite a wildfire due to increased human activity is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.	Impacts resulting from construction of SDG&E's proposed project would not occur. However, the existing conditions, including hazards associated with operation and maintenance activities would remain. Therefore, the risks associated with starting a fire would remain.
FF-2: Presence of Transmission Lines Could Start a Fire	The design features would reduce the risk associated with a portion of the power line replacement projects' existing electrical	The design features would reduce the risk associated with a portion of the power line replacement projects' existing	Potential adverse effects would remain for the power and distribution lines. The overall risk would not be eliminated.	The design features and overall reduction of circuit mileage would reduce the risk associated with a portion of the	Following pole removal on CNF-managed lands, there would be no impact. For in-kind replacement facilities outside the National Forest, the potential to ignite a	The fire hardening of the existing electric lines as proposed would not occur, and the fire hazards associated with the existing electric lines

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	<p>system but not reduce the risk for the circuits that are part of the MSUP and not part of the power line replacement projects. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The risk is not fully eliminated for the remaining overhead circuits. Approximately 12 miles of distribution line would be underground, eliminating the risk associated with overhead lines.</p>	<p>electrical system but not reduce the risk for the circuits that are part of the MSUP and not part of the power line replacement projects. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The risk is not fully eliminated for the remaining overhead circuits. Approximately 30 miles of distribution line would be underground, eliminating the risk associated with overhead lines.</p>		<p>power line replacement projects' existing electrical system but not reduce the risk for the circuits that are part of the MSUP and not part of the power line replacement projects. Overall risk reduction depends on successful implementation of vegetation management and power line maintenance requirements as required by GO 95 and PRC 4293. The risk is not fully eliminated for the remaining overhead circuits. Approximately 12 miles of distribution line would be underground, eliminating the risk associated with</p>	<p>wildfire due the presence of electric facilities is adverse. Mitigation and APMs would reduce risk of wildfire, but not eliminate the risk.</p>	<p>would remain; therefore, the risks associated with starting a fire would remain.</p>

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
				overhead lines.		
FF-3: Reduced Firefighter Effectiveness	Facilities are existing; therefore, no new obstacles would be created during aerial firefighting. This impact would not be adverse.	Although some new obstacles would be created as part of this alternative, the net reduction due to undergrounding would reduce conflicts during aerial firefighting, enhancing firefighter effectiveness.	As the power and distribution lines would remain as part of the project, no new obstacles would be created during aerial firefighting. This impact would not be adverse.	The replacement facilities are existing; therefore, no new obstacles would be created during aerial firefighting. There would be a net reduction of aerial hazards associated with removing TL626, enhancing firefighter effectiveness.	Following pole removal on CNF-managed lands, there would be no impact. For in-kind replacement facilities outside the National Forest, new poles and lines would create an obstacle during aerial firefighting. This impact would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur. However, existing conditions would continue based on the requirements of the existing permits.
FF-4: Introduction of Non-native Plants	Construction would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.	Construction would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation	Impacts would not be adverse with the required mitigation for restored access roads.	Construction would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation	Following pole removal on CNF-managed lands there would be no impact. For in-kind replacement facilities outside the National Forest, construction would remove vegetation and disturb soils, increasing potential for non-native plant establishment. Impact to fire behavior would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur. However, existing conditions would continue based on the requirements of the existing permits.
<i>Hydrology and Water Quality (see Section D.9 for full analysis)</i>						
HYD-1 and HYD-2: Short-term	During short-term construction, water quality impacts would	During short-term construction, water quality impacts would	During short-term construction, water quality impacts would	During short-term construction, water quality impacts would	During pole removal and construction of in-kind replacement facilities	Impacts resulting from construction of SDG&E's proposed

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
Construction Activities Would Degrade Water Resources	occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	outside the National Forest, short-term construction water quality impacts would occur due to runoff, sedimentation, or erosion. Impacts would not be adverse with the required mitigation.	project would not occur.
HYD-3: Groundwater Supply	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Use of groundwater in this groundwater-dependent region would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur.
HYD-4: Access Roads	Access road segments associated with C79, C442, TL625, TL626, and TL629 would be unavoidable and adverse. Construction and long-term maintenance activities along all other access roads could result in periodic sediment delivery into receiving waters; however, impacts would not be adverse with the required mitigation.	Access road segments associated with C79, C442, TL625, and TL629 would be unavoidable and adverse. Construction and long-term maintenance activities along all other access roads could result in periodic sediment delivery into receiving waters; however, impacts would not be adverse with the	Removal of the affected access roads along C79, C442, TL625, TL626, and TL629 reduces the adverse and unavoidable impacts along these roads to not adverse with the required mitigation.	Access road segments associated with C79, C442, TL625, and TL629 would be unavoidable and adverse. Construction and long-term maintenance activities along all other access roads could result in periodic sediment delivery into receiving waters;	Following removal of facilities and restoration activities on CNF-managed lands, roads that have been experiencing erosion would be restored to conditions acceptable to the Forest Service; therefore, impacts would not be adverse. For in-kind replacement facilities outside the National Forest, construction and long-term maintenance activities along all other access roads could result in periodic	Impacts resulting from construction of SDG&E's proposed project would not occur. However, the existing erosion and gully conditions in steep-slope areas and within the SDG&E ROW would continue resulting in an ongoing degradation issue. Operation and maintenance activities would continue based on the requirements of the existing permits;

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
		required mitigation.		however, impacts would not be adverse with the required mitigation.	sediment delivery into receiving waters; however, impacts would not be adverse with the required mitigation.	therefore, the severity of impacts under existing conditions to hydrology and water quality would not change.
HYD-5: Maintenance - Vegetation Management, Pesticide, and Herbicide Application	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications would not be adverse with the required mitigation.	Impacts as a result of vegetation management and chemical applications during removal and restoration, and replacement of in-kind facilities would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur. However, the existing conditions, including routine and periodic pole brushing, herbicide application, and other related ongoing maintenance tasks would continue based on the requirements of the existing permits.
<i>Land Use (see Section D.10 for full analysis)</i>						
LU-1: Temporary Disturbance Due to Construction	Construction would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Construction would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Since in remote areas, there would be no adverse impact to sensitive receptors during construction activities near the access roads; however, all other project construction would remain.	Construction would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Temporary construction during removal of facilities and restoration activities on CNF-managed lands and in-kind replacement facilities outside the National Forest would affect sensitive receptors. Impacts would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
			Therefore, impacts would not be adverse with the required mitigation.			
LU-2: Divide an Established Community	No impact.	No Impact	No impact.	No Impact	There would be no impact with removal of facilities and restoration activities on CNF-managed lands. However, development of in-kind replacement facilities outside the National Forest could have an adverse impact.	Impacts resulting from construction of SDG&E's proposed project would not occur.
LU- 3: Conflict with Applicable Land Use Plan	C157 is located within the boundaries of the federally designated Pine Creek Wilderness and the Hauser Wilderness; therefore, conflicts to designated wilderness lands are adverse and unavoidable. Portions of TL626 conflict with the CNF LMP visual and riparian standards, and C442 conflicts with CNF land use zoning.	A portion of TL626 conflicts with the CNF LMP visual standards, but the conflict with riparian standards is eliminated. C442 conflicts with CNF land use zoning. The C 157 conflict with designated wilderness is eliminated.	Reduces impacts associated with Cedar Creek riparian area and LMP amendment associated with access to TL626. All other impact findings would be nearly identical to those of the proposed project.	The replacement options for TL626 have no conflicts with applicable land use plans. The remaining circuits are the same as SDG&E's proposed action.	Impacts would not be adverse with removal of facilities and restoration activities on CNF-managed lands. However, development of in-kind replacement facilities outside the National Forest could have an adverse impact.	C157 is located within the boundaries of the federally designated Pine Creek Wilderness and the Hauser Wilderness; therefore, conflicts to designated wilderness lands would remain adverse and unavoidable.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
<i>Noise (see Section D.11 for full analysis)</i>						
NOI-1 and NOI-2: Construction Noise and Vibration	Construction would affect sensitive noise receptors. General equipment impacts would not be adverse with the required mitigation. Noise generated by helicopter use during construction that affects sensitive receptors would be a short-term adverse impact.	Construction would affect sensitive noise receptors. General equipment impacts would not be adverse with the required mitigation. Noise generated by helicopter use during construction that affects sensitive receptors would be a short-term adverse impact.	Noise generated by helicopter use during construction that affects sensitive receptors would be a short-term adverse impact.	Construction would affect sensitive noise receptors. General equipment impacts would not be adverse with the required mitigation. Noise generated by helicopter use during construction that affects sensitive receptors would be a short-term adverse impact.	Construction during removal of facilities and restoration activities on CNF-managed lands and construction of in-kind replacement facilities outside the National Forest would affect sensitive noise receptors. Impacts would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur.
NOI-3: Corona Noise	Corona noise level is below the San Diego County threshold; therefore, impacts would not be adverse.	Corona noise level is below the San Diego County threshold; therefore, impacts would not be adverse.	Corona noise level is below the San Diego County threshold; therefore, impacts would not be adverse.	Corona noise level is below the San Diego County threshold; therefore, impacts would not be adverse.	Following pole removal on CNF-managed lands, there would be no impact. However, development of in-kind replacement facilities outside the National Forest could have an adverse impact.	Impacts resulting from construction of SDG&E's proposed project would not occur. However, existing conditions would continue based on the requirements of the existing permits.
NOI-4: Long-term Impacts	Sensitive noise receptors may experience periodic, but temporary, noise increases due to routine inspections. Impact	Sensitive noise receptors may experience periodic, but temporary, noise increases due to routine inspections.	Helicopter use may increase during operations and maintenance to the power and distribution lines with removal of	Sensitive noise receptors may experience periodic, but temporary, noise increases due to routine inspections.	Following pole removal on CNF-managed lands, there would be no impact. Sensitive noise receptors near in-kind replacement facilities outside the	See No Project NOI-3.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	would not be adverse.	Impact would not be adverse.	access roads. Short-term disturbance to sensitive receptors caused by noise generated by helicopter use is a short-term adverse impact.	Impact would not be adverse.	National Forest may experience periodic, but temporary, noise increase due to routine inspections. Impacts would not be adverse.	
<i>Public Services and Utilities (see Section D.12 for full analysis)</i>						
PSU-1: Effects on Fire, Municipal Water Supply and Telecommunications	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Construction would require substantial amounts of water. In addition, AT&T facilities would require co-location onto new facilities. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Construction would require substantial amounts of water. In addition, AT&T facilities would require co-location onto new facilities. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Impacts to water use would not be adverse with the required mitigation. . In addition, AT&T facilities would require co-location onto new facilities. Impacts would not be adverse with the required mitigation.	There would be no new demand for increased fire protection facilities with implementation of required fire hazard mitigation. Construction would require substantial amounts of water. In addition, AT&T facilities would require co-location onto new facilities. Impacts would not be adverse with the required mitigation.	Removal/restoration activities and construction of in-kind replacement facilities outside the National Forest would require substantial amounts of water. In addition, communication facilities would be required to be co-located onto new facilities. Impacts would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur.
PSU-2: Solid Waste Disposal Facilities	Construction and operation would not have an adverse impact on solid waste disposal	Construction and operation would not have an adverse impact on solid waste	As the power and distribution lines would remain as part of the project, construction	Construction and operation would not have an adverse impact on solid	Removal of facilities and restoration activities and construction and operation of in-kind replacement	Impacts resulting from construction of SDG&E's proposed project would not occur.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
	facilities.	disposal facilities.	and operation would not have an adverse impact on solid waste disposal facilities.	waste disposal facilities.	facilities outside the National Forest would not have an adverse impact on solid waste disposal facilities.	
PSU-3: Disruption of Electrical Service.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	As the power and distribution lines would remain as part of the project, impacts would be as the same as SDG&E's proposed project.	Electric transfers would be phased in accordance with CAISO requirements in order to reduce the potential for electric service interruptions during construction. Impacts would not be adverse.	Following pole removal on CNF-managed lands, there would be no impact. Electric transfers for in-kind replacement facilities outside the National Forest would be phased in accordance with CAISO requirements during construction. Impacts would not be adverse.	Impacts resulting from construction of SDG&E's proposed project would not occur.
<i>Recreation (see Section D.13 for full analysis)</i>						
REC-1: Reduce Access to Recreation Areas During Construction	Temporary impacts during construction to access to recreation and wilderness areas would not be adverse with the required mitigation.	Temporary impacts during construction to access to recreation and wilderness areas would not be adverse with the required mitigation.	Temporary impacts during construction to access to recreation and wilderness areas would not be adverse.	Temporary impacts during construction to access to recreation and wilderness areas would not be adverse with the required mitigation.	Temporary impacts to access to recreation and wilderness areas during removal and restoration activities and construction of in-kind replacement facilities outside the National Forest would not be adverse with the required mitigation.	Impacts resulting from construction of SDG&E's proposed project would not occur.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES**

**Table E-11
Summary of Environmental Effects of the Alternatives**

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
REC-2: Project Components Reduce Access to Recreation Areas	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Project components would not preclude access to recreation and wilderness areas. Therefore, impacts would not be adverse.	Removal of facilities within the National Forest and in-kind replacement facilities outside the National Forest would not preclude access to recreation areas within the National Forest. Therefore, impacts would not be adverse.	Impacts resulting from construction of SDG&E's proposed project would not occur.
REC-3: Unauthorized Access	Unauthorized access on project access roads would not be adverse with the required mitigation.	Unauthorized access on project access roads would not be adverse with the required mitigation	Up to 10.5 miles of exclusive use access roads would be removed; however, removal of certain segments of existing access roads would not reduce all potential impacts of unauthorized access. Impacts would not be adverse with the required mitigation.	Unauthorized access on project access roads would not be adverse with the required mitigation	Unauthorized access on project access roads during removal and restoration activities would not be adverse with the required mitigation. Following removal and restoration activities, impacts would be minimized.	Impacts resulting from construction of SDG&E's proposed project would not occur. However, existing conditions would continue based on the requirements of the existing permits.
<i>Transportation and Traffic (see Section D.14 for full analysis)</i>						
TRANS-1 through TRANS 5: Short-term Construction Activities to Transportation Facilities,	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs impacts	Construction would potentially cause delays on surrounding circulation system; however, with implementation of proposed APMs	Although the exclusive use access roads are in remote areas, construction of other project components would potentially cause delays on surrounding	Construction would potentially cause delays on surrounding circulation system; however, with implementation of	Construction during removal and restoration activities as well as construction of in-kind replacement facilities outside the National Forest would potentially cause	Impacts resulting from construction of SDG&E's proposed project would not occur.

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
E. COMPARISON OF ALTERNATIVES

Table E-11
Summary of Environmental Effects of the Alternatives

Impact	Proposed Project	Federal Proposed Action	Partial Removal of Overland Access Roads	TL626 Replacement	No Action	No Project
Traffic and Roadways	are not adverse.	impacts are not adverse.	circulation system; however, with implementation of proposed APMs impacts are not adverse.	proposed APMs impacts are not adverse.	delays on surrounding circulation system; however, with implementation of proposed APMs impacts are not adverse.	

As shown in Table E-11, the alternatives differ in how they address impacts related to visual and biological resources, powerline related wildfire hazards, water quality, and plan consistency. The following discussion highlights those differences.

Visual resources – The federal proposed action has the least impact on visual resources. The reduction of impacts compared to SDG&E’s proposed action and the other alternatives is accomplished by relocating portions of TL626 away from sensitive areas including the Inaja Memorial Trail, relocating C157 outside of designated wilderness, placing more of C440 underground in existing roads within the Laguna Recreation Area, and placing sections of TL682 underground through the La Jolla reservation.

Biological resources – While most impacts are similar between alternatives, the TL626 replacement option that utilizes the existing TL6931 right-of-way would result in a net gain in vegetation cover and associated wildlife habitat when the existing TL626 alignment and access roads are restored.

Powerline related wildfire hazards – All alternatives have similar impacts related to the risk of construction related wildfires, with the risk reduced through implementation of fire prevention plans. The federal proposed action has the greatest reduction in wildfire risk related to overhead powerlines by placing more powerlines underground when compared to the other alternatives. The federal proposed action also has the greatest reduction of aerial hazards for the same reason. The TL626 replacement option that upgrades TL6931 and uses the off-grid solution for the Boulder Creek substation also reduces the risk of powerline related wildfire by reducing the total mileage of overhead lines.

Water quality – All alternatives incorporate measures to reduce the construction related effects to water quality and to reduce the impact of alternatives on groundwater. While several of the alternatives reduce chronic water quality impacts by reducing and restoring steep access roads near streams, the partial removal of overland access roads alternative results in the greatest reduction of impacts.

Plan Consistency – The federal proposed action is the alternative that is the most consistent with land management and other plans. Relocating TL626 reduces conflicts with CNF LMP standards for riparian areas and visual resources. Relocating C157 out of designated wilderness avoids both a statutory conflict and a conflict with the CNF LMP. Placing TL682 underground through a section of the La Jolla Reservation better respond to the economic development plans of the La Jolla Band of the Luiseno Indians. All the alternatives share conflicts with the CNF LMP visual standards for a portion of C157, and conflicts with the land use zoning for a section of C442.

E.6 Federal Preferred Alternative

As described earlier in this chapter, the federal preferred alternative is the alternative which the federal agencies believe would fulfill their statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. There is no requirement for the federal agencies to select the preferred alternative in the Record of Decision, and the identification of the federal preferred alternative may change between a draft EIS and final EIS. Identifying the federal preferred alternative in the draft helps identify the agencies' initial thinking and serves to focus public review of the analysis.

Although the Forest Service is the lead federal agency, all three federal agencies (the FS, BLM, and BIA) have independent authority within their areas of jurisdiction. Given that independent authority, and the interrelated nature of the action, the federal preferred alternative was developed jointly between the three federal agencies.

The federal preferred alternative is a composite of three alternatives. The federal proposed action is the basis of the preferred alternative; however the TL626 relocation option has been replaced by the TL626 removal from service Option 1 (the upgrade to TL6931), combined with the off-grid solution for the Boulder Creek substation. The federal preferred alternative also incorporates the portions of the partial removal of overland access roads alternative applicable to TL625, C442, and TL629. The following sections highlight the key features of the federal preferred alternative.

TL626 – The federal preferred alternative would replace TL626 by upgrading and hardening TL6931 from a single circuit wood pole 69 kV line to a double circuit steel pole 69 kV line. All upgrades to TL6931 would be done within the existing right-of-way. In addition, the customer load serviced by the Boulder Creek substation would be replaced with an off-grid system installed by SDG&E. The existing TL626 would be removed, and a portion of the line would be converted to a steel pole 12 kV line to continue to serve the customers supported by C79. The FS has jurisdiction over the sections of C79 on NFS lands, and the BIA has jurisdiction over the section of TL6931 on the Campo Indian Reservation.

TL682 – The federal preferred alternative would place an approximately 1,500 foot section of this line underground through the economic development area of the La Jolla Indian Reservation, with the remaining sections of TL682 remaining overhead as proposed by SDG&E. Both the FS and BIA have jurisdiction over portions of TL682.

TL629, TL625, and TL6923 – In addition to the fire hardening proposed by SDG&E, the BLM would issue or renew ROW grants for the portions of the lines that are on public lands under BLM jurisdiction. Portions of the steep access roads that exceed 25% would not be authorized

for TL625 and TL629, and access would be by primarily by helicopter. Both the FS and BLM have jurisdiction over portions of these three transmission lines.

C157 – The federal preferred alternative would relocate C157 out of the designated wilderness using option 2 as proposed by the City of San Diego. The FS has jurisdiction over the sections of the line on NFS lands.

C440 – The federal preferred alternative includes undergrounding of the circuit within the designated Laguna Recreation Area in addition to the undergrounding along the Sunrise Highway proposed by SDG&E. The FS has jurisdiction over the portions of C440 on NFS lands.

C442 – Under the federal preferred alternative, in addition to the work proposed by SDG&E, portions of the steep access roads that exceed 25% would not be authorized and access would be by primarily by helicopter. The FS has jurisdiction over the sections of this distribution line on NFS lands.

The remaining electric lines are treated in the same manner as described in SDG&E's proposed action. The preferred alternative also adopts the SDG&E's APM's and the additional mitigation measures identified in this Draft EIR/EIS.

E.7 Environmentally Preferable Alternative

Under NEPA, the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

In many cases the no action alternative is identified as the environmentally preferable alternative, particularly when the action being considered involves new construction. In this case, however, the federal agencies have determined that the environmentally preferred alternative is the Federal Preferred Alternative as described above. This alternative would improve scenic quality, reduce impacts to vegetation and associated habitat, reduce fire risk associated with overhead powerlines, reduce watershed and water quality impacts, and better meet the resource goals identified in local, federal, and tribal plans by reducing the total miles of overhead powerline, placing powerlines underground, relocating a powerline from wilderness, and removing excessively steep roads from sensitive watersheds.

INTENTIONALLY LEFT BLANK

F. CUMULATIVE SCENARIO AND IMPACTS

F.1 Introduction and Methodology

Both the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) require an analysis of cumulative impacts as part of the evaluation and analysis of potential impacts. NEPA defines a cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). Under CEQA, an environmental impact report (EIR) must discuss cumulative impacts of a project if the project’s incremental effects are significant when viewed in connection with the effects of past projects, current projects, and probable future projects (14 CCR 15130(a) and 15065(a)(3)). When this occurs, the project’s impacts should be identified as “cumulatively considerable.”

The environmental effects of past actions, including existing electric facilities within and outside the Cleveland National Forest (CNF) proposed to be covered under the Master Special Use Permit (MSUP), form the basis for the affected environment. To accommodate the NEPA requirement to consider the effects of past actions as well, the existing condition of the project area will be used as a proxy for the collective total of projects and activities. Other potentially related past, present, and future projects were researched at the federal, state, and local level and are described in Section F.2.

The following analysis quantifies each potential cumulative impact as it relates to SDG&E's proposed Power Line Replacement Projects wherever sufficient information is available to make informed and sound judgments regarding such analysis. Where quantification is not feasible, the analysis provides a qualitative analysis of cumulative effects. The area considered in the cumulative analysis varies by resource topic depending upon the potential for interaction or inter-relationships among these actions and SDG&E’s proposed project and its alternatives.

F.2 Applicable Cumulative Projects and Projections

The cumulative impact analysis utilizes the project list approach pursuant to 14 CCR 15130(b)(1)(A). Table F-1, Existing Projects and Electric Facilities Considered in the Cumulative Impact Analysis, and Table F-2, Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects, provide information regarding approved and currently pending projects for the cumulative scenario. Figure F-1, Cumulative Projects Map, shows the general geographic location of these projects.

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS**

**Table F-1
Existing Projects and Electric Facilities Considered in the Cumulative Impact Analysis**

Existing Projects, Including Transmission Lines and Renewable Projects	
SUNRISE POWERLINK: Development of a 150-mile transmission line that traverses 1,239.14 acres in southeastern San Diego County, including the southern boundary of the project study area. Project construction was completed in June 2012. Map ID T1 (see Figure F-1).	OCOTILLO WIND ENERGY FACILITY- CACA 51552: Development of 112 wind turbines and ancillary facilities on 10,151 acres of public lands near the town of Ocotillo, Imperial County, California. Bureau of Land Management (BLM) issued a right-of-way (ROW) grant on May 11, 2012, for up to 315 megawatts (MW) wind energy project.
SOL ORCHARD RAMONA: MUP 11-029; Major Use Permit for the construction and operation of a photovoltaic solar farm consisting of approximately 46 acres of the 110-acre site with a production capacity of 7.5 MW. Located at 1650 Warnock Drive in the Ramona Community Plan area, within unincorporated San Diego County. Approved on February 6, 2013. Map ID S17 (Figure F-1)	BOULEVARD BORDER PATROL STATION: 31-acre site located north of I-8, on the east side of Ribbonwood Road. The building includes administrative and training/educational facilities for 200 agents, including, a firing range, an equestrian facility, canine area, helipad, and vehicle maintenance buildings. Environmental documentation completed in February 2012. Project construction was completed in January 2013. Map ID F8 (see Figure F-1).
Existing SDG&E Power Lines	
TL625	TL637
TL626	TL682
TL629	TL6923
Existing SDG&E Distribution Lines	
C67	C358
C73	C440
C78	C441
C79	C442
C157	C449
C212	C524
C214	C970
C220	C973
C236	C1166
C237	C1458
C240	—
Existing SDG&E Appurtenant Facilities	
Exclusive use access roads	Glenciff Substation

Note: Sources: SDG&E 2013; CPUC and BLM 2010; SanGIS 2014.

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
<i>Wind Energy Projects</i>			
ENERGIA SIERRA JUAREZ (ESJ) WIND PROJECT I: Development of 400 MW of wind generation. Phase I (just north of the town of La Rumorosa in Mexico) is proposed to generate approximately 100 MW of energy with 45 to 52 turbines. Point of interconnection proposed with the East County (ECO) Substation. (CAISO 2010).	Northern Baja California, Mexico; in the Sierra Juárez mountains north of the town of La Rumorosa.	Final Interconnection Study completed. Draft Interconnection Agreement (IA) provided for review (Queue No. 159a). The project would be built in multiple phases. Construction anticipated to be completed in 2014.	W1 (does not show on figure)
A. BRUCCI LLC ADMINISTRATIVE PERMIT AG CLEARING, AD 10-035: Agricultural clearing for MET Tower	3055 La Posta Circle, Pine Valley.	Approved November 16, 2010.	W2
WIND MEASUREMENT TOWERS: The Descanso Ranger District proposes to authorize temporary wind measurement towers. The towers would be approximately 160 feet high and testing would be 3 years or less in duration.	Cleveland National Forest, Descanso Ranger District, San Diego County. North side of I-8, LEGAL - T 16 S, R 5 E, Sections 1, 2, and 13.	U.S. Forest Service issued a permit in February 2010 for three towers in the area of La Posta Valley and Fred Canyon Road.	W3
TULE WIND FARM: 12,239 acres of public lands, 186 MW; 67 wind turbines. The project would deliver power through the project substation via a 138-kilovolt (kV) transmission line to run south to an interconnection with the proposed San Diego Gas & Electric (SDG&E) Rebuilt Boulevard Substation.	Mountain Empire; North of Interstate (I-) 8, Highway 94, and Old Highway 80.	BLM approved December 19, 2011; County Board of Supervisors approved August 8, 2012. BLM Geotechnical Investigation notice to proceed issued September 17, 2012.	W4
NATIONAL QUARRIES, CACA 050635: Wind testing site. 4,435 acres.	North of I-8, east of Sunrise Highway in southeastern San Diego County.	Memorandum of Understanding signed. Application complete April 22, 2009, Wind testing stage (Type II).	W5
<i>Solar Energy Projects</i>			
IMPERIAL VALLEY SOLAR - SOLAR TWO, CACA 047740: Development of up to 750 MW of energy on 6,140 acres of BLM-administered public lands and on 360 acres of private lands.	North of I-8 in southwestern Imperial County.	Application for Certification filed with California Energy Commission June 30, 2008. Application for Certification/Plan of Development (POD) determined adequate under minimal criteria. Notice of Intent published October 17, 2008. The Final EIS published July 2010.	S1 (does not show on figure)

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
JACUMBA SOLAR FARM, MAJOR PRE-APP 11-023.	Southeast San Diego County, Jacumba, south of I-8: APNs 661-041-02,-03; 661-080-01,-04,-08.	Pre-application meeting was held on January 12, 2012.	S2
AMONIX JACUMBA CPV SOLAR: MPA-11-014; 80-acre solar power generation station.	About 0.25 mile west of Jacumba between Historic Rt. 80 and I-8. 659-060-22-00.	Major pre-application meeting held in 2011.	S3
TIERRA DEL SOL SOLAR FARM: MUP 12-010; Major Use Permit for the construction and operation of a 60 MW solar energy system on an approximately 420-acre site with gen-tie to Boulevard Substation.	Within the Boulevard Community Plan area of the Unincorporated County of San Diego, adjacent to the U.S.–Mexico border: APN 658-120-03-00, 658-090-31-00, 658-090-55-00, 658-120-02-00, 658-090-54-00.	In process. Draft EIR made available January 2, 2014.	S4
SOITEC SOLAR – LOS ROBLES; alternative site for solar on 1,490 acres.	East of Tierra del Sol Road	In process. Draft EIR made available January 2, 2014.	S5
FOX SOLAR PROJECT: MPA 13-012; Major Pre-Application for a proposed solar photovoltaic development on 173 acres.	East of intersection of Highway 94 and Tierra Del Sol Road: APNs 610-062-20, 21,46,47,48, 612-040-03, 53, 57, 59 & 612-041-01.	Pre-application meeting was held on August 30, 2013.	S6
SOITEC SOLAR – LanEast and LanWest Solar Farms.	Between Old Highway 80 and I-8 in Boulevard	In process. Programmatic Draft EIR made available January 2, 2014.	S7
CHAPMAN RANCH SOLAR PROJECT; 50-acre solar project planned by Solar Electric Solutions LLC on 133-acre site.	McCain Valley Road and Rocky Knoll Road north of I-8; APN 612-030-15.	Project proposed to County of San Diego mid-2013.	S8
RUGGED SOLAR: MUP-12-007; Major Use Permit for the construction and operation of an 80 MW solar energy system on an approximately 765-acre site.	Within the Boulevard Community Plan area of the unincorporated County of San Diego, north of I-8: APN 611-060-04-00.	In process. Draft EIR made available January 2, 2014.	S9

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
SILVERADO POWER, Major Pre-application 11-009: Proposal for a 58 MW photovoltaic /solar generation plant on 350 acres of the 734-acre site. Tie-line proposed to connect with the existing SDG&E Barrett–Cameron Transmission Line. The approximately 0.25-mile-long tie-line would include 3 overhead conductor lines on 55-foot-high wood poles. The project may also require construction of a substation.	South central San Diego County, north of Highway 94, in the vicinity of TL6923: APNs 602-170-02,604-050-01,604-090-01.	Pre-application meeting was held on July 19, 2011. County reviewed redesign of solar project on November 15, 2011. Pending.	S10
ECOPLEXUS-BUCKMAN SPRINGS SOLAR & VIEJAS BOULEVARD SOLAR PROJECT: MPA-13-007; a proposed 30-acre solar panel project in the Descanso and Pine Valley areas.	Along Viejas Boulevard in Descanso and along Buckman Springs in Pine Valley.	Pre-application meeting was held in August 2013.	S11
SOL ORCHARD VALLEY CENTER: MUP 11-027; Major Use Permit for the construction and operation of a solar energy project consisting of 47.5 acres of photovoltaic panels on a 53.8-acre site.	15155 Vesper Road in the Valley Center Community Plan area, within unincorporated San Diego County	Approved on October 31, 2012.	S12
CALICO RANCH SOLAR: AD-13-046; Administrative Permit for a 1 MW solar photovoltaic generation facility. The project will connect to an existing SDG&E electric distribution line that runs along Calico Ranch Road and may involve up to three new utility poles.	Along Calico Ranch Road in the Julian Community Planning area, within unincorporated San Diego County, APN 248-170-16-00.	In process of receiving permits as of March 2014.	S13
SOLAR ENERGY PROJECT: MPA 13-009; Major Pre-Application for four photovoltaic facilities to be located on SDG&E-owned properties in Pala Pauma, Ramona, Sweetwater, and Valley Center communities.	Pala Pauma, Ramona, Sweetwater, and Valley Center communities	Pre-application meeting was held July 25, 2013.	S14
NLP VALLEY CENTER SOLAR: MUP 13-019; 7 MW solar farm project on 79 acres.	29471 Cole Grade Road and Via Valencia 188-120-09-00.	Application received by the County of San Diego on October 1, 2013. Under review.	S15

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
OCOTILLO WELLS SOLAR: MUP 12-004; Major Use Permit for the construction and operation of a 339-acre solar energy system on a 440-acre site. The project would also include the construction of an approximately 13,500-square-foot substation, a 5,000-gallon water storage tank, and an approximately 1,040-square-foot storage building/control room. The proposed private substation would be located in the northeast corner of the site, adjacent to the 92 kV "R-Line." The solar array is proposed to be connected to the "R-line" with an interconnection agreement with Imperial Irrigation District (IID).	Within the Desert Subregional Plan Area in the Ocotillo Wells area of the Unincorporated County of San Diego, adjacent to Imperial County.	Appealed to the Board of Supervisors on January 28, 2014.	S16
<i>Transmission and Utility Projects</i>			
ENERGIA SIERRA JUAREZ U.S. TRANSMISSION, MUP: 230 kV double circuit power lines leading to SDG&E ECO Substation near the Mexican border.	Near SDG&E ECO Substation.	Approved by County of San Diego Board of Supervisors August 8, 2012. Estimated completion is Fall 2014.	T2
ECO SUBSTATION: ECO Substation, Rebuilt Boulevard Substation, and 13.3-mile 138 kV line between Rebuilt Boulevard Substation and ECO Substation.	Near Jacumba and Boulevard in southeastern San Diego County.	Notice to proceed for construction issued February 1, 2013. Estimated completion is Fall 2014.	T3
SAN DIEGO GAS & ELECTRIC TIE-LINE (TL) 6914 WOOD-TO-STEEL PROJECT: Improve reliability of the 12-mile TL6914 69 kV power line by replacing approximately 137 wood power and distribution line structures with weatherized steel pole structures.	Twelve miles spanning the Communities of Lakeside, Dehesa, Granite Hills, and Alpine within San Diego County.	SDG&E submitted an advice letter to the California Public Utilities Commission (CPUC) in December 2012 that was approved by CPUC June 2014.	T4
SAN DIEGO GAS & ELECTRIC TL637 WOOD-TO-STEEL PROJECT: Project includes the fire hardening of approximately 14 miles of the existing 69 kV wood pole power line (TL637) between the Creelman and Santa Ysabel Substations, replacing the existing 69 kV wood pole structures with new weathering steel poles.	Central portion of San Diego County near Ramona and Santa Ysabel. Located on private and public lands including National Forest and BLM.	Approved February 2014. Under construction— estimated completion date November 2014.	T5
AT&T MASTER PERMIT RENEWAL FOR TELEPHONE LINES: Renewal of AT&T's authorizations on the CNF, one master permit with 135 amendments, one 50-year ROWs, one telephone booth, and one access on private road to telephone facilities.	Trabuco, Palomar, and Descanso ranger districts.	AT&T is working with Forest Service on application.	Not shown on map

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
<i>Development Projects (Federal)</i>			
GOLDEN ACORN CASINO AND TRAVEL CENTER: State Clearinghouse (SCH) No. 2007071097: 33-acre expansion consisting of 150-room hotel, 900-space parking garage, surface parking, RV park, casino expansion, bowling alley, arcade, offices, retail, restaurants/food service, wind turbines, and water and wastewater improvements in three phases.	South of I-8 at Crestwood.	Draft off-reservation Environmental Evaluation complete. Public review ended August 2007. Project yet to be built, timeframe unknown.	F1
KITCHEN CREEK HELITANKER BASE PROJECT: CNF proposes to construct a Type 1 helibase at Kitchen Creek above the Cameron Fire Station. The helibase would be approximately 8 acres.	In the Kitchen Creek area approximately 1 mile north of the Cameron Fire Station	Decision signed April 11, 2012. Under construction. Estimated completion is December 2014.	F2
LAKE MORENA COMMUNITY DEFENSE PROJECT: Create and maintain defensible space on National Forest Service lands in the vicinity of Lake Morena Village.	On National Forest Service lands adjacent to Lake Morena Village.	Environmental scoping period closed April 17, 2013.	F3
DESCANSO DISTRICT UNAUTHORIZED ROUTE DECOMMISSIONING 2014: Through this project, several unauthorized routes would first be ripped using an excavator to loosen compacted soil, reduce erosion, and enable vegetation to become established. Then, metal barriers would be installed to prevent their further use.	The project centers on two general locations: the east side of I-8 at the Buckman Springs Road exit and the upper loop of Long Valley Road, southwest of I-8 in the same vicinity	Decision memo signed January 31, 2014, can implement within 45 days of notice.	F4
LAGUNA WATER SYSTEM IMPROVEMENT: Installation of a new electrical drop and service, water and control line distribution to a new reservoir site, the installation of a new 100,000-gallon reservoir and water distribution line extension to connect to the existing Laguna water system	Mount Laguna Recreation Area	Environmental review in process March 2014.	F5
VIEJAS HOTEL SOUTH TOWER: Expansion of a six-story hotel at Viejas Casino. The existing office space will be demolished and replaced with additional gaming space, a kitchen in the basement, ballroom, pre-function terrace, meeting rooms, bar, retail, and pool area. The proposed project would add approximately 16,500 square feet of gaming area in the new development.	5000 Willows Road, south of Viejas Creek in the Community of Alpine.	Notice of Preparation of a Draft Tribal EIR filed January 23, 2014.	F6

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
CEDAR CREEK FALLS VISITOR USE MANAGEMENT: The project authorizes a visitor use permit and other measures to address issues of public safety, resource impacts, and overcrowding in the vicinity of Cedar Creek Falls. It also includes the renewal of the current closure order for the cliffs surrounding the falls and a prohibition of alcohol for the area.	The project covers the greater Cedar Creek Falls area, including the trailheads for the San Diego River Gorge Trail and Eagle Peak Road.	Implemented in April 2014	F7
<i>Infrastructure Projects (State)</i>			
CALTRANS DIST.11 State Route (SR-) 94: Operational Improvement Project: Operational improvements along the 18-mile rural segment of SR-94, from Melody Road to SR-188, near the Tecate POE. Improvements include adjusting curves, creating passing lanes, widening lanes, and adding turn pockets.	18-mile rural segment of SR-94, from Melody Road to SR-188, near the Tecate POE.	The project has been suspended due to funding and resource constraints and will be re-evaluated as funds become available.	I1
<i>Residential Development Projects (County)</i>			
STAR RANCH: TM 5459; subdivide 2,160.1 acres into 460 single-family residential lots, commercial uses, equestrian facility, helipad, water treatment facility, and wastewater treatment facility. (Residential)	South of Big Potrero and west of Buckman Springs Road.	Final Draft EIR submitted March 27, 2013.	R1
FREEDOM RANCH: MUP 74-011W1; Expand existing facilities from 50 beds to 125 in four phases. (Alcohol/Drug Treatment and Recovery Facility)	1777 Buckman Springs Rd, Campo, CA 91906; APN 607-110-55-00	Under review by the County of San Diego Planning and Development Services as of March 10, 2014.	R2
HOSKING'S RANCH: TM 4121; Proposed 24 units on 40 acres each on a 1,800-acre property. (Residential)	Southwest corner of Pine Hills Road and SR-78/79. The property extends to the west to Daley Road.	Under environmental review as of March 2014.	R3
SHADOW RUN RANCH: TM 5223; major subdivisions of 263 acres into 45 residential lots and three open space lots. (Residential)	NW corner of the intersection of HWY 76 and Adams Drive APN: 111-070-12-00	Under review by the County of San Diego Planning and Development Services as of March 10, 2014.	R4
CAMPUS PARK WEST: GPA, SPA, TM, REZ, STP; Max 566 residential lots, 150,000 square feet General Commercial, 8 acres Office Professional Use, 10 acres Highway Commercial, 23 acres open space (includes a 4-acre park). (Residential, Office, Commercial, Open Space)	3135 S OLD HIGHWAY 395, FALLBROOK California 92028	Draft EIR submitted to County of San Diego in August 2013.	R5 (does not show on figure)

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
WARNER RANCH/MEADOWOOD: GPA, SP, REZ, TM, MUP, AD; development of approximately 513.6 acres, including 780 residential units (556 single-family detached and 224 multi-family and attached town homes), approximately 10.8 acres of proposed private community parks, 5.5 acres of landscape areas, an 8.0-acre Public Active Recreational Park, and 344.2 acres of on-site preserved biological open space. Site will include a fire station, a wastewater treatment plant, and frontage improvements on SR-76. (Residential)	APN 110-021-09-00; approximately 5 miles east of I-15 on Pala Road (SR-76) and west of Pala Temecula Road.	Under review by the County of San Diego Planning and Development Services as of March 10, 2014.	R6 (Does not show on figure)
<i>Other Infrastructure and Facility Projects (County)</i>			
BOULEVARD FIRE STATION: Project would replace existing fire station along Highway 94. The fire station would be 8,496 square feet including an apparatus bay, and would have a total footprint of disturbance of approximately 30,000 square feet of the 17.5-acre parcel. The site would include water tank facilities that would be filled infrequently as well as roadway improvements along its northern boundary and roadway access improvements to Manzanita Dulce. (Fire Station)	Ribbonwood Road and Manzanita Dulce; APN 612-020-47-00.	Mitigated Negative Declaration received December 6, 2011; under review by County of San Diego Planning and Development Services staff as of March 5, 2014.	O1
RIBBONWOOD ROAD SIGHTLINE IMPROVEMENT: Approximately 270-foot improvement to sightline on a horizontal curve. (Public Facilities and Utilities)	North of I-8 along Ribbonwood Road approximately 0.25 mile south of Opalocka Road, near Boulevard.	Estimated completion date spring 2013.	O2
ROUGH ACRES FOUNDATION CAMPGROUND FACILITY; MUP-12-021; Major Use Permit for a campground/conference center. (wellness center and campground facility)	2750 McCain Valley Road, Boulevard	Second major pre-app meeting held December 12, 2011; Draft EIR in process.	O3
BUCKMAN SPRINGS AND OAK DRIVE REALIGNMENT: This project will reconfigure 2,000 linear feet of the Oak Drive at Buckman Springs intersection from a "Y" to a "T." (Capital Improvement)	Buckman Springs Road and Oak Drive in the Community of Campo.	Project currently under development. Construction planned for 2015–2016, estimated completion date to be determined.	O4
BUCKMAN SPRINGS ROAD BRIDGE: Construct a new 450-foot bridge over Cottonwood Creek. (Public Facilities and Utilities)	Southwest of I-8, between Morena Stokes Valley Road and Pacific Crest Trail, Campo.	Estimated completion date spring 2016.	O5

Master Special Use Permit and Permit to Construct Power Line Replacement Projects
F. CUMULATIVE SCENARIO AND IMPACTS

Table F-2
Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects

Project	Project Location	Status	Map ID
OLD HIGHWAY 80/PINE CREEK RD INTERSECTION IMPROVEMENTS: This project will realign the intersection approach angle of Pine Creek Road with Old Highway 80 while stabilizing the adjacent slope. (Capital Improvement)	Pine Creek Road and Old Highway 80, in the Community of Pine Valley.	Project currently under development. Estimated completion date to be determined.	06
DESCANSO PATHWAY PROJECT: A 0.3-mile pathway project along Viejas Boulevard between River Drive and Manzanita Lane. (Capital Improvement)	Viejas Boulevard between River Drive and Manzanita Lane, in the Community of Descanso.	Estimated completion in 2015.	07
COLE GRADE ROAD UTILITY UNDERGROUNDING: This project will convert existing overhead utility lines to underground and the removal of utility poles along Cole Grade Road. (Capital Improvement)	10,000 feet along Cole Grade Road in the Community of Valley Center.	Estimated construction start 2016 with estimated completion by summer 2017.	08
COLE GRADE ROAD RECONSTRUCTION: This project will widen 2.5 miles of Cole Grade Road from Horse Creek Trail to the Valley Center High School.	Cole Grade Road from Horse Creek Trail to Pauma Heights Road in the Community of Valley Center.	Estimated construction start 2015 with estimated completion by summer 2017.	09

Note: Information provided in Table F-2, Cumulative Scenario – Reasonably Foreseeable Approved and Pending Projects was gathered through scoping, Internet searches, planning, programmatic, and project environmental documents, discussions with resource experts, comment letters from interested parties, and consultations with planning agencies and personnel.

F.3 Cumulative Impact Analysis

F.3.1 Introduction

This section presents the analysis of the potential for SDG&E's proposed project and alternatives to create cumulatively considerable effects when the impacts of projects listed in Tables F-1 and F-2 are considered together with the impacts of the proposed project and alternatives. Sections are presented in the same order in which they appear in Section D Environmental Analysis of this EIR/EIS.

F.3.2 Visual Resources

Geographic Extent

Cumulative impacts to visual resources would occur where construction activities and project components occupy the same field of view as other built facilities or impacted landscapes. The cumulative study area for visual resources includes the viewshed in which the project components, alternatives considered and cumulative projects are visible.

Cumulative Visual Impact Analysis

SDG&E's Proposed Project

To the extent that SDG&E's proposed project would be temporarily visible during construction along with one or more of the cumulative projects, adverse cumulative impacts may occur from construction equipment, vehicles, materials, staging areas, and personnel. During construction, implementation of Applicant Proposed Measures (APMs) APM-VIS-01 and APM-VIS-02 would reduce visual impacts by requiring the restoration of all work areas to near pre-construction conditions (when construction has been completed) and by screening construction storage and staging areas from close-range views with opaque fencing (where practical). With implementation of APM-VIS-01 and APM-VIS-02, short-term and temporary construction impacts associated with SDG&E's proposed power line replacement projects would not be significant and would not result in a cumulatively considerable impact to existing visual character and quality of the site and surroundings (Impact VIS-3). Further, no significant impacts were identified for light and glare impacts (Impact VIS-4).

While replacement poles would generally be installed at the same location as existing poles within existing power line and distribution circuit corridors, adverse and significant visual impacts (Impacts VIS-1 through VIS-5) were identified for certain individual replacement poles of SDG&E's proposed project. The installation of taller and wider weathered steel replacement poles featuring yellow high voltage marking bands where relatively thin wood poles are

currently located would result in greater view obstruction and blockage at particular scenic vistas. Taller and wider poles would also create bolder vertical forms and lines in the landscape. Yellow high voltage marking bands would typically be viewed against the backdrop of dark green to brown chaparral vegetation and the resulting color contrast would be noticeable to viewers. In addition, marker balls used in accordance with FAA guidelines would present a noticeable contrast and would detract from the overall quality of views. Further, the overhead portions of C440 near Crouch Valley would impact views from the Sunrise Scenic Byway (Impact VIS-2). As discussed in Section D.2, Visual Resources, the form, line, color and texture of certain replacement poles would create particularly noticeable contrast in the landscape and depending on location, certain replacement poles would be viewed as prominent features. In addition to existing SDG&E electric facilities proposed to be included in the MSUP, existing projects, such as the Sunrise Powerlink and, the build-out of approved projects including the Tule Wind, solar renewable energy projects, transmission/substation projects such as the ECO Substation Project and major development projects (see Table F-2 for complete list of cumulative projects) would contribute to the ongoing change in the existing visual character and ongoing degradation of scenic resources and views in the project area. Implementation of MM VIS-1 would entail specific design measures for individual replacement poles that would reduce the anticipated contrast in form and line and modify the location of poles in efforts to reduce their visual prominence. While MM VIS-1 would reduce the anticipated contrast of individual replacement poles visible from the scenic overlook and from identified key observation points, SDG&E's proposed project would occur across a wide geographic area and specific design measures would not be employed for each individual replacement pole. As a result, implementation of MM VIS-1 as proposed in the Section D.2 would not eliminate the power line replacement projects' contribution to ongoing visual change and contrast. While SDG&E's proposed project would contribute to cumulative impacts to scenic vistas (Impact VIS-1), scenic highways (Sunrise Scenic Byway; Impact VIS-2), existing visual character and quality (Impact VIS-3) and Scenic integrity objectives (Forest Service), the incremental change proposed by the project would reflect that of the existing poles and therefore would not result in a cumulatively considerable impact to the existing visual character and quality of the site and surroundings.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 4: Because Options 1 through 4 would be visible from the Inaja National Recreational Trail Scenic Overlook, Options 1 through 4 would result in similar cumulative effects to scenic vistas (Impact VIS-1) as SDG&E's proposed project. While Options 1 through 4 would avoid adverse and significant visual impacts (Impacts VIS-1 through VIS-5) for certain individual replacement poles of SDG&E's proposed project; the cumulative effects to existing visual character and quality (Impact VIS-3) associated with relocating TL626 overhead under Options 1, 2, and 4 (Option 3 develops a 1-mile segment overhead) would be

greater than those described for SDG&E's proposed project. As proposed, Options 1, 2, and 4 would develop a new overhead 69 kV ROW in undeveloped areas (Option 3 develops a 1-mile segment overhead) and would install weathered steel poles with an estimated maximum height of 120 feet and 69 kV lines within a primarily undeveloped/sparsely developed rural landscape consisting of a forested low ridge and valley landscape dominated by mixed oak woodland. New poles would generally create noticeable contrast in form, line, color, and texture when viewed alongside existing natural elements in the landscape (e.g., trees, shrubs). In addition, the establishment of a new ROW and overhead power line alignment across undeveloped or sparsely developed rural lands would create a new, linear pattern in the natural-appearing landscape where none are currently visible. The establishment of a new ROW would have a greater effect on the existing visual character of the landscape than the replacement of existing poles within existing corridors, and therefore would result in a significant cumulative impact to visual character and quality (Impact VIS-3).

TL626 Alternative Routes, Option 5: Under Option 5, the TL626 poles, conductors, marker balls, and support cables that impair the view from the National Recreation Trail would be relocated around the Inaja Picnic Area to restore the view. Therefore, Option 5 would reduce the long-term cumulative visual effects to scenic vistas (Impact VIS-1) and visual character and quality (Impact VIS-3) as described for SDG&E's proposed project.

Partial Relocation of C157: The cumulative effects associated with partially relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project because the 1.1 mile rerouted segment is in the same vicinity (0.25 mile south) of the existing location.

C440 Mount Laguna Underground Alternative: The cumulative effects associated with this alternative, which would underground C440 within existing roads, would reduce the long-term cumulative visual effects described for SDG&E's proposed project.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would avoid some of the visual impacts described for SDG&E's proposed project; however the cumulative effect to visual resources would be similar to those described for SDG&E's proposed project because the modifications proposed for TL682 are in the same project vicinity.

Additional Alternatives

Partial Removal of Overland Access Roads: While access roads themselves contribute contrasting lines and colors to the landscape and removal of steep (over 25% slope) access roads

proposed under this alternative would reduce visible color, line, and texture contrast in the landscape, the primary conflict between scenery and visual resource management objectives would occur as a result of pole removal and replacement activities. Therefore, the cumulative effects associated with this alternative would be similar to those described for SDG&E's proposed project because the modifications proposed are in the same project vicinity.

Removal of TL626 from Service: While visual effects associated with replacement facilities would be similar to those described for SDG&E's proposed project as replacement facilities would be developed within existing electric utility ROWs similar to SDG&E's proposed reconstruction of existing poles, these impacts are considered to be less than significant and not adverse. Removal of TL626 would avoid adverse and significant visual impacts (Impacts VIS-1 through VIS-5) for certain individual replacement poles of SDG&E's proposed project and therefore overall cumulative impacts would be reduced under this alternative.

No Action Alternative

While none of the facilities associated with SDG&E's proposed project would be constructed and removal of the electric lines and restoration activities within the CNF would reduce some of the visual impacts including ongoing conflicts with the Forest Service LMP High scenic integrity objectives, the cumulative effects associated with the No Action Alternative would be greater to those described for SDG&E's proposed project as SDG&E would be required to develop new overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest where none currently exist, as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain. Given that the project would not be built, no new visual impact would occur. However, over the long-term it is anticipated that SDG&E would replace individual wood poles with steel poles during operations and maintenance activities due to possible reliability and safety issues. Therefore, over time impacts to visual resources would be similar to SDG&E's proposed power line replacement projects.

F.3.3 Air Quality

Geographic Extent

The primary air quality impacts of SDG&E's proposed project would occur during construction, since the operational impacts would generally be identical to those currently

being conducted by SDG&E. Therefore, the geographic extent for the analysis of cumulative impacts related to air quality includes the San Diego Air Basin (SDAB).

Cumulative Air Quality Impact Analysis

SDG&E's Proposed Project

As evaluated in Section D.3, construction of SDG&E's proposed project would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks and helicopters hauling construction materials (Impacts AIR-1 through Impact AIR-5). Estimated construction emissions resulting from SDG&E's proposed project are expected to remain below the daily significance thresholds for criteria air pollutants for sulfur oxides (SO_x) and particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀). However, construction-related emissions would exceed the volatile organic compound (VOC), carbon monoxide (CO), oxides of nitrogen (NO_x), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM_{2.5}) thresholds, and SDG&E's proposed project would result in a significant impact to air quality (Impact AIR-1). APMs AIR-01 through AIR-05 would be implemented to reduce emissions; however, VOC, NO_x, CO, and PM_{2.5} emissions would remain above the thresholds after implementation of applicable APMs. Over the estimated 4-year construction period, project construction activities could occur concurrent with several reasonably foreseeable projects, including the Tule Wind Farm and Soitec Solar renewable energy projects, associated transmission/substation projects, and major development projects as described in Table F-2. Each of these projects would have construction-related emissions that would contribute to the cumulative air quality impacts. In addition, ongoing development within the SDAB would also contribute to cumulative air quality impacts. The SDG&E proposed project's significant and unavoidable emissions, combined with these cumulative projects, would result in a significant adverse short-term cumulative air quality impact. The SDG&E proposed project's contribution to this significant impact would be cumulatively considerable.

As discussed in Section D.3 and Section G of this EIR/EIS, the project would not induce population and or employment growth exceeding the growth estimates included in the local air quality management plans and would not include a permanent stationary source of air pollution and therefore would not conflict with an applicable air quality attainment plan. SDG&E's proposed project would not result in a net increase in operational emissions due to the nature of the project as a reconstruction, fire hardening effort of existing facilities, and therefore the project would not contribute in a cumulatively considerable manner to long-term cumulative air quality impacts.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative effects associated with relocating TL626 as proposed under Options 1 through 5 would be greater than those described for SDG&E's proposed project as these alternatives would create a greater disturbance area and therefore greater air emissions than reconstruction of TL626 in place as proposed by SDG&E.

Partial Relocation of C157: The cumulative effects associated with partially relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project as length of the alignment and construction activities would be similar. In addition, the Options 1 and 2 are in the same geographic region.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for SDG&E's proposed project as this alternative would create a greater disturbance area due to trenching activities to underground the 12kV lines and therefore greater air emissions than reconstruction overhead and in place as proposed.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be greater than those described for SDG&E's proposed project due to the increased disturbance area required for trenching activities to underground a portion of the 69kV line.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects associated with this alternative, which would remove steep (over 25% slope) access roads, would be greater than those described for SDG&E's proposed project due to the need for additional grading activities required to decommission the steep access roads.

Removal of TL626 from Service: The cumulative effects associated with this alternative would reflect impact findings described for SDG&E's proposed project as removed facilities would be replaced with facilities requiring a similar disturbance footprint within existing electric utility ROWs where no new access would be required.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be greater than those described for SDG&E's proposed project as the overall air emissions would increase due to the need to conduct restoration activities along with development of new overhead 69 kV and 12 kV

ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. Given that the project would not be built, no construction air emissions would occur.

F.3.4 Biological Resources

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with biological resources includes the vicinity of all reasonably foreseeable cumulative projects and extends throughout southeastern San Diego County, as shown in Figure F-1.

Cumulative Biological Resources Impact Analysis

SDG&E's Proposed Project

As described in Section D.4 (Impacts BIO-1 through BIO-8), SDG&E's proposed project would result in approximately 0.5 acre of permanent and 157.6 acres of temporary impacts to 11 sensitive vegetation communities (see Tables D.4-4 and D.4-7), along with associated impacts to special-status plant and wildlife species. Implementation of APMs that include compliance with relevant Operational Protocols from the SDG&E Subregional Natural Community Conservation Plan (NCCP), along with implementation of APMs and mitigation measures provided in Section D.4, would mitigate impacts to biological resources under NEPA and under CEQA impacts would be less than significant with mitigation (Class II).

SDG&E's proposed project, along with the wind energy, solar energy, transmission and utility, and development projects listed in Table F-2 and shown in Figure F-1 have the potential to impact over 27,000 acres that include some of the same sensitive biological resources as impacted by the project. Some site-specific impacts could be mitigated through avoidance of sensitive habitats and species, restoration and compliance with applicable federal, state, local, and county laws associated with protection of biological resources, as described in Section D.4. However, even with project-specific mitigation, sensitive biological resources will be lost as a result of the incremental impacts of the related projects in conjunction with SDG&E's proposed project. As described in Section D.4, SDG&E is involved in a project-specific mitigation and subregional mitigation program through its subregional NCCP that implements the regional

biological conservation goals of the NCCP Act of 1991. Continued participation by SDG&E in its subregional NCCP, along with implementation of APMs and mitigation measures presented in Section D.4, would ensure that the project's temporary impact of approximately 157.6 acres and permanent impact of 0.5 acre to sensitive vegetation communities and associated sensitive resources would be mitigated and would not contribute in a cumulatively considerable manner to biological resource impacts.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: While these options would avoid adverse and significant biological impacts (Impacts BIO-1 through BIO-8), associated with reconstruction of TL626 as proposed, the cumulative effects associated with relocating TL626 as proposed under Options 1, 2, 4, and 5 would be greater than those described for SDG&E's proposed project as these alternatives would create a greater disturbance area and therefore greater biological resource impacts than reconstruction of TL626 in place as proposed. As further described in Section D.4 Biological Resources, there is a greater potential that biological resources would be impacted under Options 1, 2, 4, and 5 as the facilities would be located in new undisturbed ROW, causing greater temporary and permanent impacts to habitat, plant and wildlife species (including special-status species) and their habitats and linkages or movement corridors. In addition, temporary and permanent impacts to jurisdictional waters would potentially be greater under Options 1 and 2. However, as with SDG&E's proposed project, continued participation by SDG&E in its subregional NCCP, along with implementation of APMs and mitigation measures presented in Section D.4, temporary and permanent impacts would be mitigated and therefore, impacts to biological resources would not be cumulatively considerable.

Cumulative effects associated with Option 3 would be less than those described for SDG&E's proposed project as this alternative would place a portion of TL626 in Boulder Creek Road thereby avoiding direct impacts to vegetation communities, suitable habitat for plant and wildlife species (including special-status species), and habitat linkages/movement corridors that would have otherwise been impacted. In addition, there will be a reduction of direct collision-related impacts to avian and bat species through the elimination of approximately 4.9 miles (Option 3a) and 3.2 miles (Option 3b) of transmission towers and associated lines. Trenching activities within the roadway could have the same potential to indirectly impact biological resources as reconstruction of TL626 in place as proposed. Additionally, temporary impacts to jurisdictional resources (Impact BIO-4) under Option 3 would be greater than that assessed in Section D.4.3.3 for SDG&E's proposed project due to an increased potential to impact hydrological features (undergrounding alignment crosses between 5 and 10 hydrological features). Permanent adverse impacts that are anticipated to occur as a result of this alternative include pole construction along a 1-mile undisturbed ROW where the alternatives would reconnect with the TL626 alignment.

As stated above, as with SDG&E's proposed project, continued participation by SDG&E in its subregional NCCP, along with implementation of APMs and mitigation measures presented in Section D.4, temporary and permanent impacts would be mitigated and therefore impacts to biological resources would not be cumulatively considerable.

Partial Relocation of C157: The cumulative effects associated with partially relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project. As further described in Section D.4 Biological Resources, temporary and permanent impacts to vegetation communities would be similar to SDG&E's proposed project and Option 2 would result in slightly less direct and indirect permanent and temporary impacts than Option 1 through a reduced aerial and ground footprint. Options 1 and 2 have two poles located within USFWS-designated arroyo toad critical habitat resulting in approximately 0.14 acres of temporary and 0.01 acre of permanent impacts to critical habitat. Other project components would remain the same. However, continued participation by SDG&E in its subregional NCCP, along with implementation of APMs and mitigation measures presented in Section D.4, temporary and permanent impacts would be mitigated and therefore, impacts to biological resources would not be cumulatively considerable.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for SDG&E's proposed project as this alternative would create a greater disturbance area due to trenching activities to underground the 12 kV lines and therefore greater impacts to biological resources than reconstruction overhead and in place as proposed. However, continued participation by SDG&E in its subregional NCCP, along with implementation of APMs and mitigation measures presented in Section D.4, temporary and permanent impacts would be mitigated and therefore, impacts to biological resources would not be cumulatively considerable.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be greater due to the increased disturbance area required for trenching activities to underground a portion of the 69kV line compared to the reconstruction of TL682 in place as proposed by the project. However, continued participation by SDG&E in its subregional NCCP, along with implementation of APMs and mitigation measures presented in Section D.4, temporary and permanent adverse and significant impacts would be mitigated to less than significant and therefore, impacts to biological resources would not be cumulatively considerable.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects associated with this alternative, which would remove steep (over 25% slope) access roads would reduce the cumulative effects to sensitive riparian habitats due to erosion and sedimentation described for SDG&E's proposed project. This alternative would not create additional cumulative biological resource impacts than those described for SDG&E's proposed project.

Removal of TL626 from Service: The cumulative effects to biological resources associated with removing TL626 would be reduced as TL626 would be removed from areas managed as having high resource potential and replaced with facilities within existing electric utility ROWs that have not been identified as having high resource potential. This alternative would not create additional cumulative biological impacts than those described for SDG&E's proposed project.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be similar to those described for SDG&E's proposed project. While restoration would occur where facilities are to be removed, similar offsetting impacts to biological resources would occur due to the need to develop new in-kind overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. Given that the project would not be built, no construction impacts to biological resources would occur.

F.3.5 Cultural and Paleontological Resources

Geographic Extent

The geographic scope for the analysis of cumulative impacts on cultural and paleontological resources is the central and eastern sections of San Diego County, as shown in Figure F-1. These areas include the relatively undeveloped portions of the territories occupied by ancestral Luiseno and Kumeyaay Native Americans, and those rural areas outside of the historically developed urban population centers in San Diego.

Cumulative Cultural and Paleontological Resources Impact Analysis

SDG&E's Proposed Project

As described in Section D.5 (Impacts CUL-1 through CUL-4 and PALEO-1), SDG&E's proposed project would not contribute to the potential loss of known significant cultural or paleontological resources. As described in Table F-2, and shown in Figure F-1, there are a number of wind energy, solar energy, transmission and utility, and development projects that have the potential to impact over 27,000 acres within the same geographic extent as SDG&E's proposed project and therefore are capable of collectively contributing, along with SDG&E's proposed project, to impacts on prehistoric resources associated with Kumeyaay lifestyles. This is considered a significant cumulative impact. Applicable laws and regulations, as discussed in Section D.5.2, provide for the identification and mitigation of adverse effects under NEPA and significant impacts under CEQA, whether through preservation of significant resources through avoidance where feasible, or mitigation of adverse effects and significant impacts specific to each resource that cannot otherwise be avoided by project redesign. SDG&E's proposed project with APMs GEN-04 along with CULT-01 through CULT-09 and implementation of mitigation measures MM CUL-1 through CUL-4 provided in Section D.5 is expected to successfully avoid adverse effects and significant impacts to cultural and paleontological resources if present (Impacts CUL-1 through CUL-4, and PALEO-1). Under the Option 4 alternative, adverse and significant visual impacts to the Pine Hills fire station buildings that are eligible for listing in the National Register cannot be avoided or mitigated. However, the Pine Hills fire station buildings do not comprise a unique historical district and visual impacts through construction of poles and overhead lines are specific to these resources and therefore would not contribute in a cumulatively considerable manner to cultural resource impacts.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative effects associated with relocating TL626 as proposed under Options 1 through 5 would be greater than those described for SDG&E's proposed project as these alternatives would create a greater disturbance area and therefore greater potential to impact cultural resources than reconstruction of TL626 in place as proposed. However, with compliance with federal laws and implementation of SDG&E's APMs and mitigation measures presented in Section D.5, adverse and significant impacts to cultural and paleontological impacts would be mitigated to less than significant and therefore, impacts would not be cumulatively considerable.

Partial Relocation of C157: The cumulative effects associated with partially relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for SDG&E's proposed project as this alternative would create a greater disturbance area due to trenching activities to underground the 12 kV lines and therefore greater potential to impact cultural resources than reconstruction overhead and in place as proposed. However, with compliance with federal laws and implementation of SDG&E's APMs and mitigation measures presented in Section D.5, adverse and significant impacts would be mitigated to less than significant and therefore, impacts would not be cumulatively considerable.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be greater due to the increased disturbance area required compared to the reconstruction of TL682 in place as proposed by SDG&E's project. However, with compliance with federal laws and implementation of SDG&E's APMs and mitigation measures presented in Section D.5, adverse and significant impacts would be mitigated to less than significant and therefore, impacts would not be cumulatively considerable.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects associated with this alternative, which would remove steep (over 25% slope) access roads would reduce the cumulative effects to cultural resources caused by overland access as described for SDG&E's proposed project. Once this alternative is constructed, ongoing grading during maintenance activities would be eliminated, thereby reducing the potential to affect cultural and paleontological resources.

Removal of TL626 from Service: The cumulative effects associated with removing TL626 would be similar to those described for SDG&E's proposed project as the disturbance area and associated cultural resource impacts would be similar to SDG&E's proposed reconstruction of existing poles.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be greater than those described for SDG&E's proposed project as the overall potential to impact cultural resources would increase due to the need to conduct restoration activities along with development of new overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest, as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. Given that the project would not be built, no construction impacts to cultural resources would occur.

F.3.6 Greenhouse Gases

Geographic Extent

In theory, the geographic extent of the cumulative contributions to greenhouse gases (GHGs) and climate change is worldwide. However, lead agencies are only able to regulate GHG emissions within their respective jurisdictions; therefore, the geographic extent is primarily contingent upon the area over which lead agencies have authority. As such, the geographic extent for the purposes of SDG&E's proposed project is limited to the affected SDAB.

Cumulative Greenhouse Gas Impact Analysis

SDG&E's Proposed Project

As discussed in Section D.6 (Impacts GHG-1 through GHG-3), the construction-related GHG emissions will be less than the County of San Diego and South Coast Air Quality Management District's (SCAQMD's) threshold of 10,000 metric tons of carbon dioxide equivalent per year (MTCO₂E/yr) for SDG&E's proposed project. Therefore, the impact of the project's GHG emissions during construction would not be considered adverse under NEPA, and under CEQA would be less than significant (Class III).

Construction-related GHG emissions would contribute to a global accumulation of emissions, and are not a temporary addition to the local air basin. Therefore, the extent to which these reasonably foreseeable cumulative projects and SDG&E's proposed project would result in significant cumulative impacts does not depend on their proximity or time schedules. As such, generation of these emissions would result in a significant and unavoidable cumulative impact to climate change. The project's temporary and short-term contribution to GHG during construction activities would not exceed the significance threshold and over the long-term would not result in a net increase in operational emissions and therefore the project would not contribute in a cumulatively considerable manner to long-term cumulative GHG impacts.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative effects associated with relocating TL626 as proposed under Options 1 through 5 would be greater than those described for SDG&E's proposed project as these alternatives would create a greater disturbance area and therefore greater GHG emissions than reconstruction of TL626 in place as proposed.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would require similar construction activities and therefore would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for SDG&E's proposed project as this alternative would create a greater disturbance area due to trenching activities to underground the 12 kV lines and therefore greater GHG emissions than reconstruction overhead and in place as proposed.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be greater due to the increased area of disturbance and associated increase in GHG emissions to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects associated with this alternative, which would remove steep (over 25% slope) access roads would be similar to the cumulative effects described for SDG&E's proposed project.

Removal of TL626 from Service: The cumulative effects associated with this alternative would reflect the cumulative impact findings described for SDG&E's proposed project as removed facilities would be replaced with facilities requiring a similar disturbance footprint within existing electric utility ROWs where no new access would be required and therefore associated GHG emissions would be similar to those associated with the proposed reconstruction of existing poles.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be greater than those described for SDG&E's proposed project as the overall GHG emissions would increase due to the need to conduct restoration activities along with development of new overhead 69 kV and 12 kV

ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. GHG emissions resulting from project construction would not occur.

F.3.7 Public Health and Safety

Geographic Extent

The cumulative study area for public health and safety would primarily focus on the immediate vicinity of SDG&E's proposed project and alternatives. Risks related to public health and safety are typically localized in nature since they tend to be related to on-site existing hazardous conditions and/or hazards caused by SDG&E's proposed project's construction or operation. See Section F.3.7 regarding fire risks.

Cumulative Public Health and Safety Impact Analysis

SDG&E's Proposed Project

As discussed in Section D.7 (Impacts PHS-1 through PHS-3), petroleum products, such as vehicle equipment fuel, and other solvents would be transported, stored, and used during construction and operation of the project. Herbicides may be used prior to construction activities and during operation of the project to clear and maintain vegetation along the alignment. To minimize impacts associated with the routine transport, use, or disposal of hazardous materials, including potential impacts to any nearby schools, Mitigation Measures (MM) MM PHS-1 and MM PHS-2 are provided to ensure agency oversight of the handling of hazardous material during construction and implementation of best management practices (BMPs) would occur. With implementation of MM PHS-1 and MM PHS-2, impacts due to potential hazardous substance spills during construction would be mitigated under NEPA and under CEQA would be less than significant (Class II). Wind energy, solar energy, transmission and utility, and development projects with the potential to contribute to cumulatively significant public health and safety impacts would also be required to comply with all applicable laws and regulations governing the safe handling and storage of hazardous materials used during construction activities. Compliance with applicable regulations, along with MM PHS-1 and MM PHS-2, would ensure that SDG&E's proposed project would not contribute in a cumulatively considerable manner to public safety impacts.

SDG&E's proposed project would require occasional, short-term helicopter support during construction, operations, and maintenance (Impact PHS-4). Temporary use of helicopters is not expected to interfere with air traffic patterns. However, if helicopters are used for the installation or removal of structures, MM PHS-5 and MM PHS-6 will apply and would ensure that helicopter use follows all safety procedures in compliance with Federal Aviation Administration (FAA) regulations. With implementation of these measures, impacts to air traffic patterns and air safety due to the use of helicopters would be mitigated under NEPA and less than significant with mitigation under CEQA (Class II). Wind energy, solar energy, transmission and utility, and development projects listed in Table F-2, would also require the use of helicopters during construction and therefore have the potential to create a cumulatively significant impact. These projects would also need to comply with FAA regulations. Compliance with FAA safety regulations, along with MM PHS-5 and MM PHS-6, would ensure that the project would not contribute in a cumulatively considerable manner to public safety impacts due to helicopter use.

Based on the conservative nature of the specification in CPUC's General Order 95, operations and maintenance of SDG&E's proposed power line replacement projects along with all facilities proposed to be covered under the MSUP would not pose a significant safety hazard due to structural failure precipitated by extreme weather (e.g., high winds, lighting) and therefore would not contribute to public safety impacts.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative effects associated with relocating TL626 overhead as proposed under Options 1, 2, 4 and 5 would be similar to those described for SDG&E's proposed project. Option 3 would reduce cumulative effects associated with structural failure due to extreme wind loading by undergrounding a segment of TL626 versus overhead reconstruction of TL626 in place as proposed by SDG&E.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: This alternative would reduce cumulative effects associated with structural failure due to undergrounding versus overhead reconstruction of C440 in place as proposed. All other cumulative effects would be similar to those described for SDG&E's proposed project.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative public health and safety effects associated with this alternative, which would remove steep (over 25% slope) access roads would be similar to the cumulative effects described for SDG&E's proposed project.

Removal of TL626 from Service: While the cumulative effects associated with removing TL626 would be similar to those described for SDG&E's proposed project, this alternative would reduce impact findings described for SDG&E's proposed project regarding structural failure due to extreme wind loading by replacing with facilities within existing electric utility ROWs where wind loading conditions are less severe.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be similar to those described for SDG&E's proposed project. While facilities are to be removed, similar offsetting impacts due to public safety issues would occur due to the need to develop new in-kind overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, the proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. The incremental reduction in cumulative hazards due to structural failure resulting from the proposed wood-to-steel pole reconstruction would not occur. Given that the project would not be built, other potential hazards due to construction activities would not occur.

F.3.8 Fire and Fuels Management

Geographic Extent

The geographic extent for the analysis of SDG&E's proposed project and alternatives includes up to several miles beyond the project's immediate footprint within and immediately adjacent to the Cleveland National Forest, as shown in Figure F-1.

Cumulative Fire and Fuels Management Impact Analysis

SDG&E's Proposed Project

As discussed in Section D.8 (Impact FF-1), petroleum products, such as vehicle equipment fuel, and other solvents would be transported, stored, and used during construction which would provide ignition sources during construction. To minimize the probability of igniting a wildfire during construction, Mitigation Measures (MM) FF-1 is provided to ensure agency oversight in developing and implementing a fire prevention plan. With implementation of MM FF-1 potential fire hazards during construction would be mitigated under NEPA and under CEQA would be less than significant (Class II). Construction of wind energy, solar energy, transmission and utility, and development projects listed in Table F-2 have the potential to contribute to cumulatively significant wildfire hazards. These projects would also be required to develop fire prevention plans. Compliance with MM FF-1 would ensure that SDG&E's proposed project would not contribute in a cumulatively considerable manner to wildfire hazards during construction. While operation of SDG&E's proposed project along with existing projects listed in Table F-1, such as the Sunrise Powerlink, and those foreseeable wind energy, solar energy and transmission and utility projects listed in Table F-2 would represent a continued increase in ignition sources capable of starting wildfires, SDG&E's proposed project would be implemented to fire harden certain existing electrical transmission facilities. Project design would include fire hardening techniques, including replacing wood poles with steel poles designed to withstand extreme wind loading, increasing conductor spacing to maximize line clearances, and installing longer polymer insulators. As discussed in Section D.8.3.3 (Impacts FF-1 through FF-4), design components of SDG&E's proposed project would reduce the long-term fire risk from the power line system. Additionally, SDG&E's proposed project will implement APMs HAZ-01 through HAZ-06, MMs FF-1 and FF-2, and BIO-4 to further mitigate the increased probability of igniting a wildfire due to construction or maintenance activities or due to the introduction of non-native plant species. With implementation of the APMs, MM FF-1 and MM FF-2, and BIO-4, fire safety within and immediately adjacent to the Cleveland National Forest would improve with project implementation and therefore would not contribute in a cumulatively considerable manner to fire hazards.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative effects associated with relocating TL626 overhead as proposed under Options 1, 2, 4 and 5 would be similar to those described for SDG&E's proposed project. Option 3 would reduce cumulative fire hazard effects for a segment of TL626 due to undergrounding versus overhead reconstruction of TL626 in place as proposed.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: The cumulative effects would be less than those described for SDG&E's proposed project as this alternative would underground C440 versus overhead reconstruction of C440 in place as proposed.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects associated with this alternative, which would remove steep (over 25% slope) access roads would be similar to the cumulative effects described for SDG&E's proposed project.

Removal of TL626 from Service: The cumulative effects associated with removing TL626 would be similar to those described for SDG&E's proposed project as facilities that would be implemented to replace TL626 would be similar in scope and placed within existing electric utility ROWs.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be similar to those described for SDG&E's proposed project. While facilities are to be removed, similar offsetting impacts due to fire hazards would occur because of the need to develop new in-kind overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, the proposed power line replacement projects would not be implemented and the existing fire hazards associated with SDG&E existing facilities would remain. The incremental reduction in cumulative fire hazard impacts resulting from the project would not occur.

F.3.9 Hydrology and Water Quality

Geographic Extent

The cumulative study area for potential impacts to water resources includes the San Juan Watershed, the Santa Margarita Watershed, the San Luis Rey Watershed, the San Dieguito Watershed, the San Diego Watershed, the Sweetwater Watershed, the Otay Watershed, and the Tijuana Watershed (refer to Figure D.9-2). Water quality management in this area is governed by the Colorado River Regional Water Quality Control Board (RWQCB) and San Diego County.

Cumulative Hydrology and Water Quality Impact Analysis

SDG&E's Proposed Project

SDG&E's proposed project, along with the wind energy, solar energy, transmission and utility, and development projects listed in Table F-2 and shown in Figure F-1 have the potential to impact over 27,000 acres, which would contribute to water quality impacts in the cumulative impacts study area. Erosion and pollutants generated from construction of all of these projects would result in significant cumulative water quality impacts in situations where construction of projects in the cumulative scenario were to occur concurrently and within the same watershed. As discussed in Section D.9 (Impacts HYD-1, HYD-2, HYD-4 and HYD-5), at the individual project level, hydrologic impacts can be mitigated to a less-than-significant level by incorporating APMs HYD-01 through HYD-11 and Mitigation Measures MM HYD-1 and MM HYD-03 through MM HYD-8, which would ensure that SDG&E's proposed project would comply with federal, state, and local water pollution control laws and that operations and maintenance measures to prevent erosion and sedimentation are implemented. SDG&E would prepare a Stormwater Pollution Prevention Plan (SWPPP) to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Activity Stormwater Permit, which requires implementation of best management practices. In accordance with applicable regulations, the other cumulative projects would also be required to be constructed using similar methods as SDG&E's proposed project, and would implement similar design features and measures to reduce hydrologic impacts. Therefore, with implementation of APMs and mitigation measures identified for SDG&E's proposed project and similar construction practices anticipated for the other cumulative projects, the project's contribution to significant cumulative impacts to water quality would be reduced to a level that would not be cumulatively considerable.

The analysis in Section D.9 identified several specific segments of SDG&E proposed project as adverse and unavoidable under NEPA, and significant and unavoidable (Class I) under CEQA, due to ongoing erosion problems associated with SDG&E exclusive use access roads

(Impact HYD-4). Due to uncertainty around the effectiveness of Mitigation Measure HYD-4 (Access Road Condition Evaluation and Repair Design Report) in reducing erosion and sedimentation impacts along particularly steep sections of access roads serving C79, C442, TL625, TL626, and TL629, the impacts were determined to be significant and adverse. These impacts, being localized in nature rather than substantial at the watershed level, are not compounded by the potential impacts of other projects in the cumulative scenario due to timing and geography. As shown in Figure F-1, there are no projects in the immediate vicinity or affecting the same stream sections as the locations discussed under Impact HYD-4 in Section D.9.3.3. Furthermore, the APMs and Mitigation Measures discussed above are adequate in substantially reducing hydrology and water quality impacts at the watershed level. Therefore the localized Class I impacts discussed under Impact HYD-4 would not be cumulatively considerable.

The volumes of water required for construction of reasonably foreseeable cumulative projects is not known; however, construction of these projects in conjunction with SDG&E's proposed project would increase the need for water in the project area (Impact HYD-3). For example, construction of the Tule Wind, Sol Orchard, and Soitec Solar projects, combined with transmission/substation projects such as the ECO Substation project and other local development projects listed in Table F-2, would all require a constant water source during construction. Water would either be provided by individual groundwater wells or by local water purveyors/agencies. Concurrent construction of SDG&E's proposed project (which would require 5 to 10 million gallons of water per year over an approximate 5-year period) and all reasonably foreseeable cumulative project in the study area could stress the ability of local water purveyors to deliver water and may impact groundwater supplies which would be considered cumulatively significant. Impacts to water supply resulting from the project (Impact HYD-3) would be temporary and reduced by implementing MM HYD-02a and MM HYD-02b, which would ensure that the identification of sufficient water supply has been provided prior to construction and that water for project construction needs would not impact groundwater resources. Therefore, with implementation of APMs and mitigation measures identified for SDG&E's proposed project, combined with similar construction practices anticipated for the other cumulative projects, the project's contribution to cumulative impacts to water supply would be less than cumulatively considerable.

As discussed in Section D.9, the relatively small amount of water used for operations and maintenance following construction of the project would not affect area water supplies and therefore would be less than significant.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative effects associated with construction activities (Impacts HYD-1 through HYD-5) for relocating TL626 as proposed under Options 1 through 5 would be reduced. Even though the relocation would result in a longer access road, the line would be rebuilt in far more moderate terrain with a limited number of stream crossings compared to SDG&E's proposed project. Option 3 would not require new access roads or repair of access roads, eliminating the potential for associated erosion impacts. Because the alternative routes for TL626 as proposed under Options 1 through 4 avoid the steep canyon the potential for cumulative impacts is reduced compared to those cumulative effects of the proposed project. The APMs and mitigation measures would be equally effective at substantially reducing severity/class of the cumulative impacts. Cumulative effects associated with water supply impact (HYD-3) would be similar to those described for the proposed project.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for the proposed project because the analysis of cumulative impacts to hydrology and water quality is unaffected by the partial relocation. There are no SDG&E exclusive use access roads along the C157 alignment and implementation of APM HYD-01 through APM HYD-10 and MM HYD-1 would likewise mitigate adverse cumulative effects associated with short-term construction activities.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for the proposed project as this alternative would create a greater disturbance area due to trenching activities to underground the 12 kV lines and therefore greater short-term impacts to water resources than reconstruction overhead and in place as proposed. All other cumulative effects associated with the C440 underground alternative would be similar to those described for the proposed project as no new access roads or repair of access roads would be required along C440, and implementation of APM HYD-01 through APM HYD-10 and MM HYD-1 would likewise mitigate adverse cumulative effects associated with short-term construction activities.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: This alternative would reduce cumulative effects to water quality by removing up to 10.5 miles of steep (25% slope) access roads that are causing

water quality impacts in the watershed (Impact HYD-4). Short term effects (Impacts HYD-1 through HYD-3) would differ slightly from that discussed for SDG&E's proposed project, because it would include removal of access roads following construction. Implementation of APM HYD-01 through APM HYD-10 and MM HYD-1 would be equally effective at mitigate adverse effects associated with short-term construction activities under this alternative. The severity and extent of Impact HYD-5 would be slightly reduced because 10.5 fewer miles of access road would require maintenance.

Removal of TL626 from Service: The short-term construction related cumulative effects associated with removing TL626 would be similar to those described for SDG&E's proposed project as the disturbance area and associated hydrologic impacts would be similar to the proposed reconstruction of existing poles. The long-term cumulative effects would be reduced with the removal of facilities and access roads associated with TL626 within steep slopes and designated riparian conservation areas and replaced in areas that are less steep and not designated as having high resource value.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be reduced compared to those described for SDG&E's proposed project. Restoration would occur where facilities are to be removed, including excessively steeply-aligned access roads, which are the source of substantial adverse impacts associated with erosion/sedimentation. Although other facilities would need to be constructed to develop new in-kind overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest, these occur in areas that are less steep, likely less sensitive, and would be subject to modern design standards associated with construction of new facilities.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. While hydrologic resource impacts resulting from the construction activities would not occur, continued erosion and water quality impacts would occur, particularly along TL626 within the Cedar Creek riparian area and TL625 in the area of Barber Mountain.

F.3.10 Land Use

Geographic Extent

As discussed in Section D.10, Land Use, the majority of the potential land use impacts of SDG&E's proposed project would occur during construction with few lasting operational impacts. Because the construction-related impacts of SDG&E's proposed project would be temporary and localized to the project alignment, staging areas and helicopter fly yards, they would only have the potential to combine with similar impacts of the other projects if they occur at the same time and in close proximity and therefore the cumulative study area for land use primarily focuses on the immediate vicinity of SDG&E's proposed project and alternatives.

Cumulative Land Use Impact Analysis

SDG&E's Proposed Project

As indicated in Section D.10.3.3 (Impact LU-1), while temporary land use disruptions associated with construction of SDG&E's proposed Power Line Replacement Projects could be adverse, such impacts would only apply to those residences and other sensitive land uses less than 1,000 feet from the proposed route and construction activities. For residences and other sensitive land uses within 1,000 feet of temporary construction activities, project impacts associated with disruptions during project construction would be mitigated and less than significant with implementation of MM LU-1. Since the majority of the wind energy, solar energy, transmission and utility, and development projects listed in Table F-2 and shown in Figure F-1 would not occur within 1,000 feet of SDG&E's proposed project, it is anticipated that project construction disruptions with mitigation would not combine with those related to other cumulative projects and therefore not be cumulatively considerable.

While past actions, including existing electrical facilities such as the Sunrise Powerlink and existing power lines and circuits within and outside the Cleveland National Forest, combined with the build-out of wind energy, solar energy, transmission and utility, and development projects listed in Table F-2 and shown in Figure F-1 have and/or will continue to disrupt surrounding land uses during construction and operations, SDG&E's proposed project would not result in a cumulatively considerable impact to the existing land use character and quality of the site and surroundings. As discussed in Section D.10 (Impact LU-2), the project is located entirely within existing SDG&E ROW or underground in area roads and is essentially a reconstruction project of existing electric utility lines. Therefore, SDG&E's proposed project would not entail the establishment of new ROW or the construction/installation of new barriers or obstacles that could physically divide an established community. As such, SDG&E's proposed project would

not contribute to permanent land use impacts and temporary disruptions during construction would not be cumulatively considerable.

Segments of the SDG&E proposed project for TL626 and C442 traverse Forest Service lands zoned Back Country Non-Motorized. Because these power and distribution line segments are accompanied by access roads, they are considered to Developed Facilities and are thus not suitable uses within the Back Country Non-Motorized land use zone. In addition, as proposed by SDG&E, C157 would be reconstructed in place and as a result, would continue to traverse Congressionally-designated wilderness. Also, SDG&E's proposed project for TL626 traverses Forest Service lands proposed as Recommend Wilderness in the LMP Amendment. The continued operation of non-suitable uses within established land use zones of the LMP and the continued presence of C157 in designated wilderness represent conflicts with land use plans and policies (Impact LU-3) and as such, MM LU-2 has been provided. With the exception of the Sunrise Powerlink, other projects considered in this analysis (see Table F-2) are located outside of the CNF and are not anticipated to be located within designated wilderness. Similar to MM LU-2 that would address LMP conflicts with SDG&E's proposed project, a project-specific LMP Amendment was enacted by the Forest Service for the Sunrise Powerlink in order to accommodate the transmission line in the National Forest. Because the LMP conflict was addressed by a project-specific LMP amendment and because the majority of cumulative projects considered in this analysis are located outside of the National Forest, conflicts between SDG&E's proposed project and established land use zones of the LMP and the Wilderness Act would not be cumulatively considerable.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 4: The cumulative LU-1 and LU-2 effects associated with relocating TL626 overhead as proposed under Options 1, 2 and 4 would be greater than those described for SDG&E's proposed project. These alternatives would entail the development of a new overhead 69 kV ROW in undeveloped areas as opposed to reconstruction in place. LU-1 and LU-2 effects would however be localized and mitigated with implementation of MM-LU-1 and MM-LU-4 and as a result would not be cumulative considerable. While the majority of Options 3a and 3b would be installed underground within Boulder Creek Road, both would entail the developed of a new overhead ROW across private, County of San Diego lands located in the rural residential community of Pine Hills. As a result, temporary disruptions to land uses near project components (Impact LU-1) and physical division of an established community (Impact LU-2) would be greater than those described for SDG&E's proposed project. Due to the rural and largely undeveloped character of lands in the vicinity of Boulder Creek Road, trenching associated with Options 3a and 3b would result in similar or slightly greater LU-1 impacts than SDG&E's proposed project however, these temporary effects would

be localized to surrounding land uses, would be mitigated with implementation of MM LU-1 and MM-LU-2 and would not be cumulatively considerable.

Options 1 and 2 would result in similar existing LMP land use zone conflicts as SDG&E's proposed project but would avoid lands zoned Recommended Wilderness by the forthcoming LMP Amendment. By relocating the identified segment of TL626 to Boulder Creek Road, Options 3a and 3b would avoid Forest Service lands designated Back Country Non-Motorized by the existing CNF LMP and lands that would be designated Recommended Wilderness by the forthcoming LMP Amendment. While Options 1 through 4 would result in fewer conflicts with land use plans (Impact LU-3) when compared to SDG&E's proposed project, potential conflicts would be mitigated by MM LU-2. In addition, the cumulative projects considered in this analysis are generally located outside of the CNF. Therefore, the LU-3 impacts of the TL626 Alternatives (Options 1 through 4) would be localized to the CNF and with the exception of the Sunrise Powerlink, would not combine with other potential plan conflicts associated with cumulative development to result in a cumulative considerable effect. Because a project-specific LMP Amendment was enacted by the Forest Service to accommodate the Sunrise Powerlink, this analysis does not consider the presence of the transmission line to be a permanent land use plan conflict. As such, LMP conflicts associated with SDG&E's proposed project would be mitigated with implementation of MM LU-2 and would not combine with LMP conflicts concerning the Sunrise Powerlink that were address by a project-specific LMP Amendment. Therefore, a cumulative LU-3 impact would not occur as a result of implementation of Options 1-4.

TL626 Alternative Routes, Option 5: While Option 5 would reduce visual impacts at the Inaja Memorial National Recreation Trail scenic overlook, construction activities would be carried out in a similar fashion and manner as SDG&E's proposed project. In addition, Option 5 would remain within 1,000 feet of the Inaja Memorial Picnic Area and National Recreation Trail and as a result, would create similar LU-1 impacts SDG&E's proposed project. Temporary LU-1 impacts would be localized to the Option 5 alignment and as such, would not combine with the effects of identified cumulative development elsewhere in the study area to create a cumulatively considerable impact. Option 5 would entail the establishment of a new underground and overhead ROW however; the overhead alignment would generally follow SR-79 and would traverse the undeveloped chaparral-covered terrain of the San Diego River canyon. Because Option 5 would not traverse or displace established communities or residences and because mitigation would be implemented for the remaining sections of TL626, temporary and permanent disruption of land uses (Impact LU-2) would be less than significant. Furthermore, with implementation of mitigation, localized and temporary disruptions to established land uses would be mitigated and would not be cumulatively considerable. Lastly, similar to SDG&E's proposed project, the overhead and underground segments of Option 5 would traverse the Developed Area Interface and Back Country Non-Motorized land uses zones. The establishment

of Option 5 would likely entail the construction of access road across Back Country Non-Motorized zoned lands located north of pole Z213737. As such, a short segment of Option 5 would be considered a Developed Facility, would conflict with the LMP and MM LU-2 would be implemented. Similar to all other TL626 alternatives, conflicts between Option 5 and the LMP would be limited to CNF and would not combine to create a cumulatively considerable effect in the CNF or in the cumulative study area.

Partial Relocation of C157: Options 1 and 2 would relocate C157 generally within the same ROW and shifted slightly to avoid designated wilderness. Therefore, the Partial Relocation of C157 would reduce the long-term cumulative LU-3 effects associated with wilderness conflicts by removing a non-suitable use from designated wilderness without creating additional land use impacts.

C440 Mount Laguna Underground Alternative: The cumulative LU-1 and LU-2 effects associated with this alternative which would underground C440 within existing roads would be similar to those described for SDG&E's proposed project as construction, operations and maintenance would proceed in similar fashion as that described for the proposed project. In addition, within the boundary of the Laguna Mountain Recreation Area, both SDG&E's proposed project for C440 and this alternative would be installed on Forest Service lands zoned Developed Area Interface and would be considered suitable uses/activities. Therefore, both SDG&E's proposed project for C440 and this alternative would comply with the established land use zones of the LMP and cumulative LU-3 impacts would be similar.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects associated with this alternative which would remove steep (over 25 %) slope access roads would reduce the long-term cumulative effects associated with conflicts with the CNF Land Management Plan (LMP).

Removal of TL626 from Service: The cumulative effects associated with removing TL626 and replacing with facilities that are generally located within existing electric utility ROWs would avoid conflicts with the CNF LMP and therefore would reduce the long-term cumulative effects associated with conflicts to recommended wilderness without creating additional land use impacts.

No Action Alternative

Under the No Action Alternative, the MSUP would not be issued, and SDG&E would be required to remove the existing electric lines and facilities on Forest Service lands, thereby eliminating identified land use conflicts (Impact LU-3) with established land use zones, as discussed in Section D.10.3.3. While LMP land use zone conflicts would be avoided under the No Action Alternative, the cumulative effects associated with the No Action Alternative would be similar or greater than those described for SDG&E's proposed project. SDG&E would be required to develop additional transmission upgrades elsewhere outside the National Forest as opposed to reconstruction in place as proposed. Depending on the location of upgrades, conflicts with established County and/or local jurisdiction land use zones may occur under the No Action Alternative.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to operations and maintenance activities. While new land use impacts resulting from the project would not occur, ongoing conflicts associated with TL626 and C442 and established land use zones of the Forest Service LMP and conflicts between C157 and provisions of the Wilderness Act would continue.

F.3.11 Noise

Geographic Extent

The geographic extent for the analysis of cumulative impacts related to noise is generally limited to areas within approximately one-quarter mile of SDG&E's proposed Power Line Replacement Projects routes and project components. This area is defined as the geographic extent of the cumulative noise impact area because noise impacts would generally be localized, mainly within approximately 500 feet from any noise source; however, it is possible that noise from different sources such as helicopters within one-quarter mile of each other could combine to create a significant impact to receptors at any point between the projects. At distances greater than one-quarter mile, construction noise would be briefly audible and steady construction noise from SDG&E's proposed power line replacement projects would generally dissipate into quiet background noise levels. The baseline for assessing cumulative noise impacts includes the noise sources associated with other existing projects in the immediate vicinity of SDG&E's proposed power line replacement projects and the existing and future sensitive receptors near project-related activities or noise sources.

Cumulative Noise Impact Analysis

SDG&E's Proposed Project

Potential adverse noise impacts during construction of SDG&E's proposed project would be localized and would occur intermittently for varying periods of time throughout the construction period. Short-term impacts from SDG&E's proposed project's construction noise (Impacts NOI-1 and NOI-2) would be mitigated through implementation of MM NOI-41 through MM NOI-04 as described in Section D.11, which would require that SDG&E employ short term noise reducing measures when in close proximity to a sensitive receptor; prepare and distribute a public notice prior to helicopter use; prepare and implement a blasting plan should blasting be necessary; and provide advance notice to nearby sensitive receptors should construction activities be required at night (and provide temporary relocation if necessary).

As listed in Table F-2 some of the wind energy, solar energy, transmission and utility, and development projects may be constructed within the same general time frame as SDG&E's proposed project and, as shown in Figure F-1, some of them, including a number of solar renewable projects, are within one-quarter mile of SDG&E's proposed project. Some, including the Tule Wind and ECO substation may also use helicopters during construction. Should construction schedules overlap, construction noise from these projects would be considered cumulatively significant. These projects would also be required to comply with County noise standards and reduce temporary construction noise to within acceptable levels. Therefore, with implementation of APMs NOI-01 through NOI-10 and MM NOI-01 through MM NOI-04, and compliance with County noise standards, SDG&E's proposed project's contribution to significant cumulative impacts due to construction noise would not be cumulatively considerable.

Operations and maintenance activities (Impacts NOI-3 and NOI-4) are not expected to be above daytime ambient noise levels in the project area and/or in excess of standards in the local noise ordinances for adjacent properties. Operations and maintenance activities would resemble those currently administered by SDG&E and would not increase above noise levels under existing conditions. Therefore, in the absence of impacts, incremental accumulation of long-term noise effects due to SDG&E's proposed project would not occur.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The construction-related cumulative effects associated with relocating TL626 as proposed under Options 1 through 4 would be greater than those described for SDG&E's proposed project. These alternatives would develop a new and longer ROW along with new access roads that would have a greater potential to affect sensitive

receptors compared to reconstruction of TL626 in place as proposed. The long-term cumulative noise impacts associated with Options 1, 2, and 4 would also be greater than those described for SDG&E's proposed project as these alternatives would develop a new overhead 69kV ROW in undeveloped areas where no related noise impacts currently exist, increasing the ambient noise levels than currently exist in these areas, as opposed to reconstruction in place as proposed. As with SDG&E's proposed project, should construction schedules with cumulative projects overlap, construction noise from these projects would be considered cumulatively significant (Impacts NOI-1 and NOI-2). With implementation of APMs NOI-01 through NOI-10 and MM NOI-01 through MM NOI-04, and compliance with County noise standards, Options 1, 2, and 4 contribution to significant cumulative impacts due to construction noise would not be cumulatively considerable.

The cumulative effects associated with Option 5 would be similar to those described for SDG&E's proposed project. This is due to the undeveloped nature in the vicinity of the affected portion of TL626 under Option 5.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project because the 1.1-mile rerouted segment is in the same vicinity (0.25 mile south) of the existing location.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for SDG&E's proposed project as trenching activities within paved roadways required under this alternative would have a greater potential to affect sensitive receptors resulting in greater short-term noise impacts than reconstruction overhead and in place as proposed. As with SDG&E's proposed project, should construction schedules with cumulative projects overlap, construction noise from these projects would be considered cumulatively significant (Impacts NOI-1 and NOI-2). With implementation of APMs NOI-01 through NOI-10 and MM NOI-01 through MM NOI-04, and compliance with County noise standards, Options 1, 2, and 4 contribution to significant cumulative impacts due to construction noise would not be cumulatively considerable.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The short-term cumulative effects associated with removing access to certain areas would be similar to those described for SDG&E's proposed

project. However; the long –term noise impacts would marginally increase due to the anticipated increase use in helicopters required under this alternative.

Removal of TL626 from Service: The cumulative effects associated with removing TL626 would be similar to those described for SDG&E’s proposed project as the presence of sensitive noise receptors that could be exposed to noise impacts during construction and operations, under this alternative would be similar to SDG&E’s proposed reconstruction of existing poles.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be similar than those described for SDG&E’s proposed project as similar construction noise levels would occur with removal of the existing facilities as well as restoration activities along with development of new overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest.

No Project Alternative

Under the No Project Alternative, SDG&E’s proposed power line replacement projects would not be implemented and the existing noise conditions would remain with ongoing operations and maintenance activities. Noise impacts resulting from the project construction would not occur.

F.3.12 Public Services and Utilities

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with public services and utilities consists of the area within southeastern San Diego County as shown in Figure F-1. This geographic extent is appropriate because certain public services and utilities provided by local jurisdictions or districts within this area may be affected by both SDG&E’s proposed project and those projects listed in Tables F-1 and F-2.

Cumulative Public Services and Utilities Impact Analysis

SDG&E’s Proposed Project

SDG&E’s proposed Project would not result in an increase in population and would not place demands on public services or utilities beyond those currently required during operations and maintenance and therefore would not contribute to long-term cumulative demand on public services. Construction of SDG&E’s proposed Power Line Replacement Projects would result in an incremental demand regarding water usage and public services systems such as fire protection (discussed separately under fire and hydrology) and may disrupt telecommunication utility service (Impacts PSU-1 and PSU-2).

Construction of projects listed in Table F-2 in conjunction with SDG&E's proposed project would increase the need for water in the project area. Water would either be supplied by individual groundwater wells or by local water purveyors/agencies, and if supplied by local groundwater wells would be considered cumulatively significant. With implementation of MM HYD-2a, which requires written documentation and commitments of the project's construction water supplies and MM HYD-2b, which ensure that no adverse impacts to groundwater (Impact PSU-1) would occur due to project construction, SDG&E's proposed project's contribution to temporary demand for water would not be cumulatively considerable.

The construction of all reasonably foreseeable projects in the cumulative analysis (specifically those projects proposing ground disturbances) could result in disruptions to existing telecommunication utility systems which would be considered cumulatively significant. However, as required by California Government Code Section Code Section 4216(a)(1), each individual project proposing excavation would be required to contact Underground Service Alert which would require potentially affected utility providers to mark their utilities (thus minimizing the potential for conflicts to arise during construction). SDG&E's proposed project will also be required to implement MM PSU-1, which requires that SDG&E coordinate the replacement of power lines with AT&T to ensure that telecommunications services are not interrupted. Therefore, with mitigation, SDG&E's proposed project's contribution to cumulative impacts due to disruptions to existing utilities (Impact PSU-3) would not be cumulatively considerable.

Forest Service Proposed Action s

TL626 Alternative Routes, Options 1 through 5: The construction-related cumulative effects to water supply, public services and telecommunications associated with relocating TL626 as proposed under Options 1 through 5 would be similar to those described for SDG&E's proposed project.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: The cumulative effects to water supply, public services and telecommunications associated with this alternative would be similar to those described for SDG&E's proposed project.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects to public services associated with removing access to certain areas would be similar to those described for SDG&E's proposed project.

Removal of TL626 from Service: The cumulative effects associated with removing TL626 would be similar to those described for SDG&E's proposed project as the public services affected by constructing replacement facilities proposed under this alternative would be similar to those for the proposed reconstruction of existing poles.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be greater than those described for SDG&E's proposed project as the potential to impact existing utilities would increase due to the development of new overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to operations and maintenance activities. Public service and utility impacts resulting from the project would not occur. Given that the project would not be built, no construction impacts to public services or utilities would occur.

F.3.13 Recreation

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with recreation includes the wilderness areas, dispersed areas, and recreation facilities within and outside of the Cleveland National Forest; Inaja Memorial Picnic Area and National Recreation Trail; Cuyamaca Rancho State Park; California Riding and Hiking Trail, Tribal recreation areas; and County designated open space areas that would be traversed by or adjacent to SDG&E's proposed Power Line Replacement Projects. These areas consider both direct and indirect impacts to wilderness and recreation activities, and this geographic scope is appropriate as it considers the effects of other projects within this region on the resources impacted by SDG&E's proposed power line replacement projects.

Cumulative Recreation Impact Analysis

SDG&E's Proposed Project

Due to the temporary influx of construction workers and vehicles on roads in the study area and the linear nature of proposed project, the proposed construction activities may temporarily impair movement or access along roads near existing power lines and distribution circuits which could in turn temporarily reduce access and visitation to local recreation areas (Impacts REC-1 and REC-2). However, while construction activities adjacent to or within roadways may temporarily hinder vehicular movement on area roadways used to access recreation areas, implementation of APMs TRANS-01, TRANS-04 and TRANS-05 would minimize the severity of impacts associated with reduced access by coordinating lane closures with local jurisdictional agencies and by implementing a construction Traffic Control Plan. While construction activities are likely to be viewed as an inconvenience by those using the recreation areas, the poles are existing features in or near such facilities and therefore the reconstruction as proposed would not preclude and or affect the use of recreation areas on a long-term basis.

In instances where SDG&E's electric facilities proposed to be covered under the MSUP are located near special designation areas such as the Barker Valley IRA (located west of East Grade Road near the TL682 alignment), Pine Creek Wilderness and Hauser Wilderness (both traversed by C157) and the King Creek RNA (currently traversed by C79), both the continued presence of power and distribution line poles and if applicable, maintained access roads and construction activities may possibly result in increased, unauthorized access (Impact REC-3). MM REC-01 is provided to ensure that gates (or other barriers where appropriate) and signage are installed at access roads or at other possible points of access to special designation areas to deter unauthorized use. In addition, MM REC-2 is provided to ensure that proper gate protocol is followed during construction and ongoing operations and maintenance activities and that cost-appropriate restoration activities are carried out where increased unauthorized disturbance is observed by SDG&E or Forest Service Staff. With implementation of MM REC-1 and REC-2, impacts associated with increased unauthorized access would be mitigated.

While past actions, including existing electrical facilities such as the Sunrise Powerlink and existing power lines and circuits within and outside the Cleveland National Forest, combined with the build-out of wind energy, solar energy, transmission and utility, and development projects listed in Table F-2 and shown in Figure F-1 would continue to affect recreational resources within and outside the Cleveland National Forest, SDG&E's proposed project with mitigation MM REC-01 and MM REC-02 would not result in a cumulatively considerable impact to recreational resources as the project is located entirely within SDG&E ROW or

underground in area roads and is essentially a reconstruction project of existing electric utility lines.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The cumulative impacts to recreation would be reduced due to removal of a portion of TL626 from high value recreational and resource area without creating additional impacts to recreational use.

Partial Relocation of C157: The cumulative impacts associated with relocating C157 overhead as proposed under Options 1 and 2 would be reduced due to the removal of C157 from designated wilderness.

C440 Mount Laguna Underground Alternative: The cumulative effects due to short-term disruption to access recreational areas would increase due to trenching activities within paved roadways in order to underground the 12 kV lines. All other impacts to recreation would be similar to those described for SDG&E's proposed project.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative impacts to recreation associated with removing approximately 2 miles of existing access roads used exclusively to access SDG&E facilities would be similar to those described for SDG&E's proposed project.

Removal of TL626 from Service: The cumulative impacts to recreation would be reduced due to removal of a portion of TL626 from high value recreational and resource area without creating additional impacts to recreational resources.

No Action Alternative

Under the No Action Alternative, existing electric lines would be removed from the National Forest and SDG&E would be required to develop new overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest. Conceivably, some of the existing electric lines located near transportation corridors could be relocated to follow existing local roads, highways and interstates however, given the uncertainty regarding the location of new overhead ROW, relocated lines may traverse private property and/or non -Forest Service public lands that provide

recreational opportunities. Therefore, while removing the electric lines from the National Forest would reduce some of the identified impacts to recreational resources located in the National Forest, relocated lines may affect recreational resources elsewhere in the County. For purposes of this analysis, the cumulative effects associated with the No Action Alternative would be similar to those described for SDG&E's proposed project due to the uncertainty regarding the location of new overhead alignments and the potential for conflicts with recreational resources.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. Given that the project would not be built, no cumulative impacts or benefits to the recreation resource would occur.

F.3.14 Transportation and Traffic

Geographic Extent

Upon completion, SDG&E's proposed project would have little transportation or traffic associated with it other than for routine inspection and maintenance activities and operations. Therefore, the only opportunity for cumulatively significant transportation and/or traffic impacts to occur would be during the approximate five-year construction period. Construction-related traffic impacts would mostly result from temporary lane interruptions that would occur within the immediate vicinity of SDG&E's proposed Power Line Replacement Projects. Therefore, the geographic extent for the analysis of cumulative traffic and transportation impacts is defined as the area up to 3 miles from SDG&E's proposed Power Line Replacement Projects and including numerous regional and local transportation facilities including I-8, SR76, SR 78, SR 79, and Old Highway 80. This scope is appropriate because traffic impacts caused by SDG&E's proposed Power Line Replacement Projects would be limited and would be of short duration and based on the project impact analysis presented in Section D.14, would not cause substantial delays or traffic congestion.

Cumulative Transportation and Traffic Impact Analysis

SDG&E's Proposed Project

As discussed in Section D.14 (Impact TRANS-1 through Impact TRANS-5), Transportation and Traffic, construction of SDG&E's proposed project would contribute to short-term impacts to traffic circulation on local roadways. While peak construction would generate approximately 304 and 532 trips per day for construction crews and equipment/material deliveries this traffic would

be spread out across the 563,200-acre project area. The average number of crews working at one time at any given location would be 10, resulting in between 80 and 140 trips per day. As discussed in Section D.14, short-term impacts to project area roads can be reduced to a less-than-significant level by incorporating APM TRANS-01 through APM TRANS-05, which include measures such as scheduling lane closures during off-peak traffic hours, and development and implementation of a Traffic Control Plan. As listed in Table F-2, some of the wind energy, solar energy, transmission and utility, and development projects may be constructed within the same general time frame as SDG&E's proposed project. Should construction schedules overlap, construction traffic from these projects would be considered cumulatively significant. It is anticipated that short-term construction traffic due to these other projects can be mitigated by implementing measures similar to those identified for SDG&E's proposed project. These measures would ensure that access would be maintained to individual properties and businesses, that emergency access would not be restricted, and that congestion and delay of traffic resulting from ongoing development are not substantially increased and would be of a short-term nature. Therefore by incorporating APM TRANS-01 through APM TRANS-05, SDG&E's proposed project's contribution to cumulative impacts due to construction traffic would not be cumulatively considerable.

The operation of SDG&E's proposed project would generate minimal traffic only required for routine patrolling and maintenance; therefore, the project would not contribute to long-term cumulative impacts to traffic.

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: The construction-related cumulative effects associated with relocating TL626 as proposed under Options 1, 2, and 5 would be similar to those described for SDG&E's proposed project. Under Options 3 and 4, the cumulative effects would be greater than those described for SDG&E's proposed project as this alternative would create a greater disruption to roadways due to proposed undergrounding in Boulder Creek Road rather than overhead reconstruction as proposed.

Partial Relocation of C157: The cumulative effects associated with relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: The cumulative effects would be greater than those described for SDG&E's proposed project as this alternative would create a greater disruption to roadways due to proposed undergrounding in area roads than overhead reconstruction overhead as proposed.

BIA Proposed Action

The cumulative effects associated with modifying TL682 on Tribal lands would be similar to those described for SDG&E's proposed project.

Additional Alternatives

Partial Removal of Overland Access Roads: The cumulative effects to short-term traffic impacts associated with removing approximately two miles of existing access roads used exclusively to access SDG&E facilities would be similar to those described for SDG&E's proposed project.

Removal of TL626 from Service: The cumulative effects associated with removing TL626 would be similar to those described for SDG&E's proposed project as the disturbance area and associated short-term and long-term impacts would be similar to the proposed reconstruction of existing poles.

No Action Alternative

The cumulative effects associated with the No Action Alternative would be greater than those described for SDG&E's proposed project as the overall traffic levels would increase due to the need to develop new overhead 69 kV and 12 kV ROWs elsewhere in areas outside the National Forest as opposed to reconstruction in place as proposed.

No Project Alternative

Under the No Project Alternative, SDG&E's proposed power line replacement projects would not be implemented and the existing conditions would remain due to ongoing operations and maintenance activities. Given that the project would not be built, no construction traffic impacts would occur.

F.4 References

BLM (Bureau of Land Management). 2014. U.S Department of Interior Bureau of Land Management, California, Pending Renewable Energy Applications. Accessed March 24, 2014. <http://www.blm.gov/ca/st/en/prog/energy/pendingapps.html>.

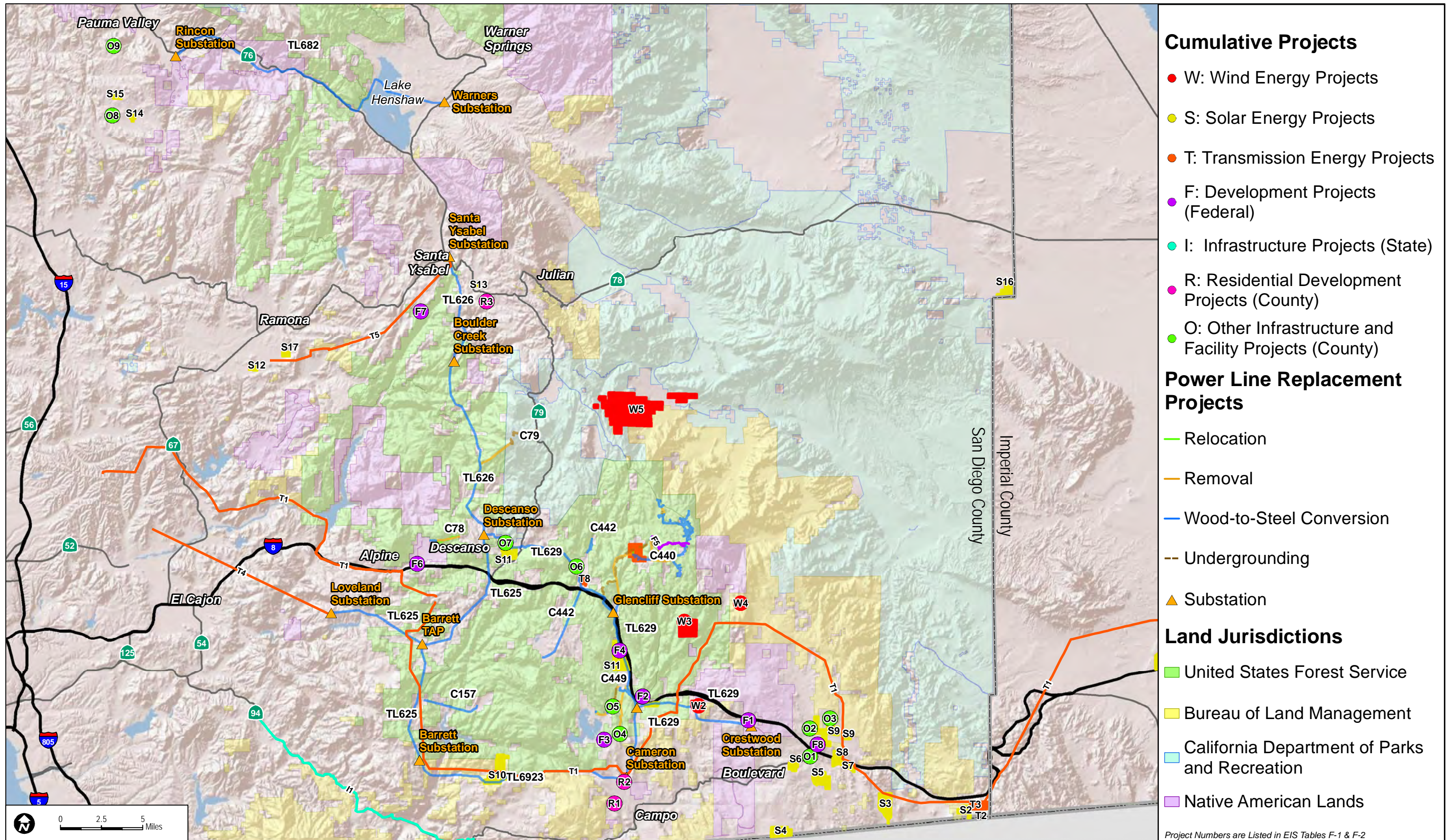
CAISO (California Independent System Operator Corporation). 2010. The California ISO Controlled Grid Generation Queue as of April 30, 2010. Accessed May 19, 2010. <http://www.caiso.com>.

CPUC (California Public Utilities Commission) and BLM (Bureau of Land Management). 2010. *Final Environmental Impact Report/Environmental Impact Statement East County Substation, Tule Wind, and Energia Sierra Juarez Gen-Tie Projects*. Prepared by Dudek. Encinitas, California: Dudek. October 2011. http://www.cpuc.ca.gov/environment/info/dudek/ecosub/ECO_Final_EIR-EIS.htm#VOLUMES 1 and 2: Revised Draft EIR/EIS.

SanGIS. 2013. "San Diego County Energy Projects." Published in association with Land Use and Environmental Group Geographic Information Services (LUEG GIS). December 2013. Accessed March 14, 2014. http://eastcountymagazine.org/sites/eastcountymagazine.org/files/2014/January/Energy%20projects%20Countywide%202012-19-13%20Map_0.pdf.

SDG&E (San Diego Gas and Electric). 2013. *Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California, Revised Plan of Development*. Prepared by Insignia Environmental. Encinitas, California: Insignia Environmental. April 2013. <http://www.cpuc.ca.gov/environment/info/dudek/CNF/DR3Response.htm>.

INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK

G. REQUIRED CEQA/NEPA TOPICS

Section G includes discussions of topics required by the California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA), including growth-inducing effects (Section G.1), irreversible and irretrievable commitment of resources and environmental changes (Section G.2), adverse unavoidable impacts (Class I) identified in Sections D.2 through D.14 (Section G.3), the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity (Section G.4), effects found not to be significant (G.5), and compliance with applicable federal environmental regulations and policies (Section G.6). Section G.7 lists the references cited in this section.

G.1 Growth-Inducing Effects

CEQA and NEPA require a discussion of the ways in which a proposed project could be an inducement to growth. CEQA Guidelines Section 15126.2(d) identifies a project to be growth-inducing if it fosters economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. For purposes of CEQA, a project that accommodates growth (i.e., by removing an obstacle to growth) is considered growth-inducing. The Council on Environmental Quality NEPA Regulations also require that an EIS discuss the growth-inducing impacts of a project (40 CFR 1508.8(b)): “Indirect effects may include growth- inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.”

Typically, the growth-inducing potential of a project would be considered adverse if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Adverse growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth levels beyond those permitted by local or regional plans and policies.

SDG&E’s proposed power line replacement projects and the alternatives evaluated in this EIR/EIS would fire harden certain electric facilities in and around the Cleveland National Forest (CNF). Fire hardening requires replacement of and upgrades to facilities whether proposed by SDG&E or in alternatives to the project. Such replacements and upgrades would also improve the reliability of power delivery to surrounding communities. Potential growth-inducing impacts could thus arise in two ways:

1. Growth caused by direct and indirect employment.
2. Growth related to reconstruction of SDG&E’s existing 69-kilovolt (kV) electric system in and around the CNF.

G.1.1 Growth Caused by Direct and Indirect Employment

The construction and operation of SDG&E's proposed power line replacement projects, including alternatives considered, would not affect the employment patterns in the study area. The proposed power line replacement projects would take approximately 5 years to construct and employ up to approximately 100 workers per day working in different locations at different times across a large area. Local highways provide good access to SDG&E's proposed project area, as the longest commute for construction workers is approximately 60 miles (generally a 1-hour drive) between downtown San Diego and the Santa Ysabel area. Therefore, the majority of construction workers are anticipated to come from the San Diego County area. Outside contractors may also be used who would commute from outside San Diego County and stay in existing hotels during construction. There is an adequate supply of hotels and inns in the project area that could be temporarily utilized by the out-of-town personnel, and therefore project construction would not increase demand for housing, induce population growth, or be considered growth-inducing.

Operations and maintenance of SDG&E's proposed power line replacement projects along with the other SDG&E electric facilities proposed to be covered under the MSUP would require routine and ongoing maintenance tasks similar to those currently administered by SDG&E. These activities would not increase in duration, intensity, or frequency in such a way as to create long-term employment opportunities, and therefore, would not result in a permanent increase to the local population, increase demand for housing, or be considered growth-inducing.

G.1.2 Growth Related to Reconstruction of SDG&E's Existing 69 kV Electric System in and around the CNF

SDG&E's proposed power line replacement projects, including the alternatives considered, would fire harden certain existing electric facilities in and around the CNF consistent with California Public Utility Commission (CPUC) policy and CPUC General Order 95 strategies to reduce fire hazards associated with overhead power lines. SDG&E's proposed project would also improve the reliability of power delivery to surrounding communities.

Reconstruction of existing electric facilities would include replacement of the existing wood poles with steel poles and replacement of existing conductors on existing 69 kV lines with new 69 kV conductor. Approximately 5.7 miles of existing 69 kV line would also be converted from single-circuit to double-circuit segments. Replacement of existing conductors and conversion of certain segments from single-circuit to double-circuit as proposed would increase the capacity of the existing system to move energy. Alternatives that consider the removal of existing facilities would also require upgrades (in order to replace electricity lost by removing such facilities) and would also increase the capacity of the system similar to SDG&E's proposed project.

The potential for SDG&E's proposed project (or alternatives to the proposed project) to be growth inducing depends on the extent to which the proposed new conductors would increase capacity of the existing system and whether this increased capacity would accommodate growth by removing an obstacle to growth, particularly concerning the development of additional renewable generation projects (solar/wind) in the project study area. To address this issue, it is important to consider the electric system's existing capacity to move electric energy within the project's service area. It is also important to consider any potential increase in capacity in the context of other growth-related constraints.

Capacity to Move Electricity

The proposed project would replace existing conductors on five 69 kV lines, which were originally installed decades ago with the smallest SDG&E standard conductors currently used for new and reconstructed facilities of the 69 kV system. These new conductors are stronger, more resistant to heat, and heavier than existing conductors are. This allows the new conductors to fulfill the primary purpose of the power line replacement projects to increase fire safety and service reliability and provide additional fire hardening, as discussed in Section D.8, Fire and Fuels Management, of this EIR/EIS. These new conductors will also result in a fourfold increase in the conductor's ability to move energy as compared to the existing conductors. The increased capacity of the proposed new conductors and double-circuit components to move energy depends also on equipment at the line terminals.

Potential to Facilitate Future Growth in Local Renewable Generation Projects

The proposed power line replacement projects would increase capacity to move electricity, thereby removing a possible obstacle to growth of new local renewable generation projects. However, none of the modifications proposed as part of the proposed project, in and of themselves would allow interconnections of a new local renewable generation project. At this time, there are no foreseeable future local renewable generations projects that could be built based solely on the completion of proposed power line replacement projects or alternatives. As discussed in Section F, Cumulative Scenario and Impacts, of this EIR/EIS, there are 19 renewable energy projects (see Table F-2) proposed in the project area. Such projects are not dependent on the capacity of the proposed new conductors and double-circuit components, but rather on whether the California Independent System Operator (CAISO) completes the required generation interconnection process for any particular generation project. New generation projects must first complete the CAISO generator interconnection process as specified by the CAISO's FERC Tariff and Business Process Manual. The CAISO interconnection process requires detailed studies of any proposed generator projects' effect on the power line system, including whether or not a proposed generator can connect reliably and safely to the system. Whether these

renewable energy projects, and potential future generation projects, move forward is also dependent on local land use decisions and other necessary approvals and environmental review.

In light of the uncertainty surrounding CAISO interconnection requirements and the outcome of local land use decisions, specific and detailed predictions about whether new generation project(s) would occur with or without SDG&E's proposed project is speculative and beyond the scope of this analysis.

Growth Related to Provision of Additional Capacity to move Energy

As discussed in Section A.3, Project Objectives, SDG&E's proposed project is important to reduce fire risk and improve the reliability of power delivery to surrounding communities in and around the CNF. This project, including alternatives considered, would not directly induce growth in any predictable or defined location as a result of additional capacity to move energy. SDG&E's proposed project, if approved, would continue to deliver reliable electric power similar to that which SDG&E currently provides.

Conclusion

The increased capacity provided by SDG&E's proposed project power line replacement projects would remove an obstacle to growth of new local renewable generation projects, and would therefore be considered growth-inducing under CEQA. It would be speculative, however, to draw any conclusion regarding specific growth that might occur since the proposed project, including alternatives considered, would not in and of themselves allow interconnections of new renewable generation projects. The construction and operation of SDG&E's proposed power line replacement projects would not result in a permanent increase to the local population, increase demand for housing, or be considered growth inducing from a community growth perspective. As discussed in Section A.3, Project Objectives, SDG&E's proposed project is important to reduce fire risk consistent with CPUC's policy and General Order 95 and improve the reliability of power delivery to surrounding communities in and around the CNF.

G.2 Irreversible and Irretrievable Commitment of Resources and Environmental Changes

CEQA Guidelines (Section 15126.2(c)) require that an EIR identify significant irreversible environmental changes that would be caused by a proposed project. Changes may include use of nonrenewable resources or provision of access to previously inaccessible areas, as well as project accidents that could change the environment in the long term. NEPA regulations also require that an EIS analysis include a discussion of the potential irreversible and irretrievable commitments

of environmental resources as a consequence of the approval and implementation of SDG&E's proposed project (40 CFR 1502.16).

G.2.1 Possible Impacts to Nonrenewable Resources

Construction-Related Resources

Development of SDG&E's proposed project would require a permanent commitment of natural resources resulting from the direct consumption of fossil fuels, construction materials, the manufacture of new equipment that largely cannot be recycled at the end of the project's useful lifetime, and energy required for the production of materials. Further, the project proposes no uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would affect other areas. In addition, the project area is located within a seismically active region and would be exposed to ground shaking during a seismic event; however, compliance with GO 95 and applicable geotechnical design standards reduce potential adverse and significant impacts to not adverse under NEPA and less than significant under CEQA (Class III).

Biological Resources

Construction of the replacement poles, conductors and transmission lines, and undergrounding improvements would necessitate the permanent loss of 0.5 acre of 9 sensitive vegetation communities including chamise chaparral, Diegan coastal sage scrub, mixed oak woodland, montane forest, native grassland, oak savanna, semi-desert chaparral, southern mixed chaparral, and southern riparian forest (see Section D.4, Biological Resources). With the implementation of the mitigation measures provided in this EIR/EIS, adverse and significant impacts to these sensitive vegetation communities would be mitigated under NEPA and under CEQA are considered less than significant with mitigation (Class II).

Cultural Resources

This project has the potential to impact nonrenewable historic and archaeological sites, traditional cultural properties, or areas containing paleontological resources due to construction, operation, temporary staging sites, and conductor pull sites (see Section D.5, Cultural and Paleontological Resources). With implementation of mitigation measures incorporated into this EIS/EIR, potential adverse and significant impacts to historic, prehistoric, human remains, and paleontological resources would be mitigated under NEPA and under CEQA would be less than significant with mitigation (Class II).

Visual Resources

The replacement of existing 69 kV and 12 kV wood poles over approximately 145.9 miles with weathered steel poles, that are on average 12 feet higher, would slightly alter the visual landscape and character of the site and surrounding area. Relocation and undergrounding would remove approximately 15.2 miles of existing 12 kV overhead and replace/relocate some portions (approximately 13 miles) with new underground lines. Affected viewers would include motorists and travelers along Interstate 8 (I-8), Old Highway 80, State Route (SR-) 76, SR-78, SR-79, and SR-94, among other various roadways in the unincorporated portions of the County of San Diego; as well as residents in the communities of Cuyamaca, Descanso, Guatay, Pine Valley, Mount Laguna, Fallbrook, Jamul, Dulzura, Julian, Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, Santa Ysabel, Warner Springs, Palomar Mountain, Pala/Pauma Valley, Potrero and dispersed rural residential areas along local roads; and recreationists visiting public lands including the Pacific Crest National Scenic Trail.

Changes to visual settings would vary, depending on the quality and character of existing views, viewing conditions, and distances to SDG&E's proposed project facilities. Overall, many views would remain similar to the existing conditions, as the wood-to-steel replacement of existing distribution circuits would produce weak visual contrast in the landscape as the form, line, and color of replacement poles would appear visually similar to existing wood poles. Views in areas where relocation and undergrounding would occur would benefit the view sheds by removing existing structures and placing them underground (see Section D.2, Visual Resources).

G.2.2 Proposed Alternatives

Forest Service Proposed Actions

TL626 Alternative Routes, Options 1 through 5: Options 1 through 4 would relocate portions of TL626 to the east in new undisturbed right-of-way (ROW). While Options 1 through 4 would reduce identified effects associated with resource management standards identified in the Forest Service's Land Management Plan (LMP) for the Cedar Creek riparian area, the long-term commitment of natural resources in general due to the introduction of a new overhead 69 kV power line ROW where none currently exists as proposed under Options 1, 2, and 4 would be greater than those described for SDG&E's proposed project. Long-term views under Option 3 where relocation and undergrounding would occur would benefit the view sheds by removing existing structures and placing them underground.

The commitment of natural resources associated with Option 5, which relocates a segment of TL626 around the Inaja Memorial Picnic Area, would be similar to those described for SDG&E's proposed project and would reduce long-term impacts to visual resources.

Partial Relocation of C157: The commitment of natural resources associated with partially relocating C157 overhead as proposed under Options 1 and 2 would be similar to those described for SDG&E's proposed project.

C440 Mount Laguna Underground Alternative: The short-term commitment of natural resources would be greater than those described for SDG&E's proposed project as this alternative would create a greater disturbance area and therefore greater construction-related impacts to air quality than reconstruction overhead and in place as proposed. Views in areas where undergrounding would occur would benefit the view sheds compared to SDG&E's proposed project by removing existing structures and placing them underground.

BIA Proposed Action

The BIA proposed action places approximately 1,500 feet of TL682 underground through the economic development zone in the La Jolla Reservation. The commitment of natural resources associated with modifying TL682 on Tribal lands would be slightly greater due to the increased disturbance area to those described for SDG&E's proposed project.

BLM Proposed Action

In addition to the power line replacement work included in SDG&E's proposed project, the BLM would be issuing new or renewed ROW grants for the transmission lines on public lands administered by the BLM. This includes portions of SDG&E's power line replacement project for TL629, 625, and 6923, as described in Table B-2. The ROW grants would be issued under the authority of Title V of the Federal Land Policy and Management Act of 1976. The ROW grants would authorize the ongoing operation and maintenance of the transmission lines.

Additional Alternatives

Partial Removal of Overland Access Roads: The commitment of natural resources associated with this alternative, which would remove steep (over 25% slope) access roads, would reduce the commitment of natural resources to sensitive riparian habitats described for SDG&E's proposed project.

Removal of TL626 from Service: The commitment of natural resources associated with removing TL626 would be reduced as TL626 would be removed from areas managed as having high resource potential and replaced with facilities within existing electric utility ROWs that have not been identified as having high resource potential.

G.3 Adverse Environmental Effects That Cannot be Avoided

Table G-1, Summary of Proposed Project Adverse and Unavoidable Impacts, lists the adverse environmental effects (Class I Impacts) of SDG&E's proposed project and alternatives that cannot be avoided or reduced with mitigation. Note that under each alternative in Table G-1, the adverse and unavoidable impacts under NEPA and significant and unavoidable impacts under CEQA (Class I) are specific to the segment/component of that particular alternative addressed.

G.4 Short-Term Use Versus Long-Term Productivity of the Environment

NEPA requires consideration of the relationship between short-term uses of the environment and long-term productivity associated with SDG&E's proposed project (42 U.S.C. Section 4332(C)(iv)). This involves the consideration of whether SDG&E's proposed project, including alternatives considered, would sacrifice a resource value that might benefit the environment in the long-term for some short-term value to the applicant or the public. The proposed power line replacement projects, including the alternatives considered, do not involve short-term uses, outside of necessary temporary impacts that would occur within the 5-year construction period. Some flora and fauna specimens in the area would be lost along with some visual quality from the replacement of wood-to steel poles and associated transmission and distribution infrastructure. However this loss would be offset by the improved reliability of power delivery to surrounding communities and the reduction of fire risk through fire hardening of the electric facilities in and around the CNF in the long term. Therefore, there would be no permanent loss of the overall productivity of the environment from SDG&E's proposed project.

G.5 Effects Not Found To Be Significant

CEQA Guidelines Section 15128 requires a brief discussion of the various possible significant effects of a project that were determined not to be significant and were therefore not discussed in the EIR. As discussed in Section A, Introduction, and Section I, Public Participation, of this EIR/EIS, a Notice of Preparation (NOP) and Notice of Intent (NOI) were prepared for SDG&E's proposed project and sent out for public comment as part of the scoping process to determine issues to be addressed in the EIR/EIS. Those areas which did not generate concerns and were found through the scoping process not to have possible significant effects are treated in this section. In addition, these effects were also determined to not be significant issues, per the Forest Service Handbook FSH-1909.15-2012-3 Section 12.41 (40 CFR 1500.4).

**Table G-1
Summary of Proposed Project and Alternatives Adverse and Unavoidable Impacts (Class I)**

Impact No. Section	General Impact Discussion	Project-Specific Impact Discussion	Power Line Replacement Projects	Forest Service Proposed Actions									BIA Proposed Action	Additional Alternatives		No Action Alternative	No Project Alternative
				TL626 Alternative Routes Option 1	TL626 Alternative Routes Option 2	TL626 Alternative Routes Option 3	TL626 Alternative Routes Option 4	TL626 Alternative Routes Option 5	C157 Partial Relocation to Avoid Designated Wilderness Option 1	C157 Partial Relocation to Avoid Designated Wilderness Option 2	C440 Mount Laguna Underground Alternative	Partial Removal of Overland Access Roads		Removal of TL626 from Service			
VIS-1 D.2	Constructing new poles would create a noticeable contrast in form, line, color, and texture when viewed alongside existing natural elements in the landscape (i.e., trees, shrubs, etc.). In addition, the establishment of a new ROW and overhead power line alignment across undeveloped or sparsely developed rural lands would create a new, linear pattern in the natural-appearing landscape where none are currently visible.	Impacts to a scenic vista (Impact VIS-1) at the Inaja Scenic overlook (TL626) would remain adverse under NEPA and under CEQA would be considered significant and unavoidable (Class I). Even with implementation of Mitigation Measure MM VIS-1, due to greater spatial presence due to increased height and width of the poles, there are no effective screening methods available to reduce the significant visual effect from the Inaja Memorial National Recreational Trail scenic overlook.	X	X	X	X	X										X
AIR-1 D.3	Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants.	Impacts would remain adverse under NEPA and under CEQA would be considered significant and unavoidable (Class I) such that volatile organic compounds (VOCs), NOx, CO, and PM2.5 emissions would remain above the thresholds after implementation of applicable Applicant Proposed Measures (APMs).	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HYD-4 D.9	Ongoing operation and use of exclusive use access roads greater than 25% slope would result in existing erosion, gully, and sedimentation impacts to continue.	Impacts would remain adverse under NEPA and under CEQA would be considered significant and unavoidable (Class I) without decommissioning (removing) or realigning these road segments.	X					X									X

**Table G-1
Summary of Proposed Project and Alternatives Adverse and Unavoidable Impacts (Class I)**

Impact No. Section	General Impact Discussion	Project-Specific Impact Discussion	Power Line Replacement Projects	Forest Service Proposed Actions									BIA Proposed Action	Additional Alternatives		No Action Alternative	No Project Alternative
				TL626 Alternative Routes Option 1	TL626 Alternative Routes Option 2	TL626 Alternative Routes Option 3	TL626 Alternative Routes Option 4	TL626 Alternative Routes Option 5	C157 Partial Relocation to Avoid Designated Wilderness Option 1	C157 Partial Relocation to Avoid Designated Wilderness Option 2	C440 Mount Laguna Underground Alternative	Partial Removal of Overland Access Roads		Removal of TL626 from Service			
LU-3 D.10	The project - C157 - would conflict with applicable laws of an agency with jurisdiction over the project.	Feasible mitigation to avoid conflicts with the provisions of the Wilderness Act is not available; therefore, SDG&E's proposed project for wood-to-steel replacement of C157 would result in adverse and unavoidable impacts under NEPA and under CEQA would be considered significant and unavoidable (Class I).	X														X

Agriculture and Forestry Resources: SDG&E's proposed project and alternatives considered would not have a significant effect upon agriculture and forestry resources, as no land use changes are proposed with the replacement and fire hardening of the existing transmission and distribution lines. SDG&E's proposed project would not convert existing agriculture or forestry lands to non-agricultural or non-forest uses.

Population and Housing: SDG&E's proposed project and alternatives considered would not result in population growth in the area because no new homes or businesses are proposed, and no new infrastructure related to population growth is proposed. In addition, no new housing is needed because non-local construction workers would use available temporary housing throughout San Diego County. Further, the workers would be in the area only during construction and are not expected to become permanent residents.

Public Services and Utilities: SDG&E's proposed project and alternatives considered would not result in population growth as no new homes or businesses are proposed, and no new infrastructure related to population growth is proposed. Therefore, no new demand would be placed on police, library, schools, and hospital services in the project area. In addition, there would be no demand for new wastewater infrastructure.

Socioeconomics/Environmental Justice: No people or housing would be displaced as a part of SDG&E's proposed project or alternatives considered. After the completion of construction, the electric lines would be operated and maintained by SDG&E at existing staffing levels. No additional staff would be necessary to maintain the electric lines (SDG&E 2013). Due to the reasons mentioned above, there would be no change to population or significant impacts on local employment, property values, and tax revenues benefiting public agencies. Additionally SDG&E's proposed project would not create disproportionately high or adverse effects on minority or low-income populations as the construction footprint is minimal and replacement in nature, while operations and maintenance would remain status quo.

G.6 Compliance with Applicable Federal Environmental Regulations and Policies

Table G-2 lists applicable Federal Environmental Regulations and Policies, brief descriptions of how these are addressed, and where in the document a full discussion can be found.

Table G-2
Compliance with Applicable Federal Environmental Regulation and Policies

Federal Environmental Regulation or Policy	Brief Discussion	EIR/EIS Section of Detailed Discussion
Federal Land Policy and Management Act (FLPMA), 43 U.S.C. 1701 et seq.	The project would be in compliance with NEPA and relevant aspects of the Federal Land Policy and Management Act.	All sections of the EIR/EIS
Endangered Species Act (16 U.S.C. 1531–1534)	SDG&E's proposed project is subject to a U.S. Forest Service permit; therefore, a Section 7 federal nexus with the U.S. Fish and Wildlife Service (USFWS) would occur if the project may affect endangered or threatened species or designated critical habitat. Specifically, there are proposed permanent impacts to 0.01 acre of Quino checkerspot butterfly (<i>Euphydryas editha quino</i>) critical habitat as designated by the USFWS.	D.4 Biological Resources
Migratory Bird Treaty Act and Executive Order 13186	Construction of SDG&E's proposed project could result in the removal of vegetation potentially supporting nesting birds protected by the Migratory Bird Treaty Act. Direct and indirect impacts to nesting birds resulting from SDG&E's proposed project would be adverse, but mitigated.	D.4 Biological Resources
Bald Eagle Protection Act (16 U.S.C. 668a–668d)	Construction of SDG&E's proposed project could result in the removal of vegetation potentially supporting nesting birds protected by the Bald Eagle Protection Act. Direct and indirect impacts to nesting birds resulting from SDG&E's proposed project would be adverse, but mitigated.	D.4 Biological Resources
Fish and Wildlife Coordination Act	Active coordination with the U.S. Fish and Wildlife Service agency would occur throughout the lifespan of SDG&E's proposed project.	D.4 Biological Resources
Clean Air Act, as amended (42 U.S.C. 7401 et seq.)	Construction of the project components would not be subject to general conformity because the construction emissions would not exceed the de minimis thresholds for VOC, NO _x , and CO. Operation of the project components would not be subject to general conformity because the federal agencies would not have ongoing practical control of their operation.	D.3 Air Quality and D.7 Public Health and Safety
Clean Water Act, as amended (33 U.S.C. 1251 et seq.)	The project would be in compliance with the Clean Water Act. The project will obtain all applicable Clean Water Act permits and/or certifications prior to construction.	D.4 Biological Resources, and D.9 Hydrology and Water Quality
Executive Order 11990 – Protection of Wetlands	Impacts to wetlands are avoided to the greatest extent possible. Unavoidable impacts would be mitigated.	D.2 Biological Resources
National Historic Preservation Act	The project will avoid to the extent possible and mitigate any unavoidable impacts to cultural resources.	D.5 Cultural and Paleontological Resources
Resource Conservation and Recovery Act, or Solid Waste Disposal Act (42 U.S.C. 6901 et seq.)	SDG&E's proposed project would be in compliance with hazardous materials and non-hazardous solid waste management as outlined in the Resource Conservation and Recovery Act and the Solid Waste Disposal Act.	D.7 Public Health and Safety

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
G. REQUIRED CEQA/NEPA TOPICS**

**Table G-2
Compliance with Applicable Federal Environmental Regulation and Policies**

Federal Environmental Regulation or Policy	Brief Discussion	EIR/EIS Section of Detailed Discussion
Comprehensive Environmental Response, Compensation, and Liability Act, as amended (42 U.S.C. 9601 et seq.)	SDG&E's proposed project would be in compliance with the guidelines and requirements as set forth in the Comprehensive Environmental Response, Compensation, and Liability Act.	D.7 Public Health and Safety
Toxic Substances Control Act, as amended (15 U.S.C. 2601 et seq.)	SDG&E's proposed project would be in compliance with the guidelines and requirements as set forth in Toxic Substances Control Act.	D.7 Public Health and Safety
Federal Energy Regulatory Commission (FERC)	SDG&E's proposed project would be in compliance with the FERC's guidelines and requirements.	D.8 Fires and Fuels
Federal Wildland Fire Management Policy	SDG&E's proposed project includes APMs which would reduce impacts related to wildland fires.	D.8 Fires and Fuels
National Fire Plan	SDG&E's proposed project would be in compliance with the National Fire Plan requirements with the development and implementation of a Construction Fire Prevention/Protection Plan and an Operations and Maintenance Fire Prevention/Protection Plan.	D.8 Fires and Fuels
National Forest Management Act and USDA Forest Service Management Plans	SDG&E's proposed project would be in compliance with the established CNF Land Management and Fire Management Plans with the exception of C15, that is currently located in an area designated wilderness by the Wilderness Act of 1962 and the Southern California National Forests LMP. Pending approval and adoption of the Southern California National Forests LMP Amendment, SDG&E's proposed project for TL626 would entail the installation of a non-conforming activity or use in the Recommended Wilderness zone and overland access roads within areas designated as Back Country Non-Motorized, which would conflict with the suitability of uses within the recommended wilderness land use zone as established in the LMP.	D.8 Fires and Fuels D.10 Land Use and Planning
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended (7 U.S.C. 136 et seq.)	SDG&E's proposed project would be in compliance with the guidelines and requirements as set forth by FIFRA.	D.9 Hydrology and Water Quality
Safe Drinking Water Act (SDWA), as amended (42 U.S.C 300f et seq.)	SDG&E's proposed project would be in compliance with the guidelines and requirements as set forth by SDWA.	D.9 Hydrology and Water Quality
Wilderness Act of 1964	Under SDG&E's proposed project, C157 would not be in compliance with the Wilderness Act.	D.10 Land Use
Executive Order 13112 – Invasive Species	Construction and operation and maintenance of SDG&E's proposed project could result in the introduction of invasive, non-native or noxious plant species. Direct and indirect impacts resulting from SDG&E's proposed project would be adverse, but mitigated.	D.4 Biological Resources D.8 Fire and Fuels Management

G.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

40 CFR 1500–1518. Protection of Environment. Chapter V: Council on Environmental Quality.

SDG&E (San Diego Gas & Electric). 2013. *SDG&E Revised Plan of Development. San Diego Gas & Electric Company, Master Special Use Permit, Cleveland National Forest, Orange and San Diego Counties, California*. April 1, 2013. Accessed March 2014.

Prepared by Insignia Environmental.

[http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20\(04-19-13S\).pdf](http://www.cpuc.ca.gov/environment/info/dudek/CNF/POD2/CNF%20Revised%20POD%20(04-19-13S).pdf).

H. MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

This section outlines the mitigation monitoring, compliance, and reporting program (MMCRP) to ensure effective implementation of the Applicant Proposed Measures (APMs) and mitigation measures required by the CPUC and the Forest Service for the Master Special Use Permit and Permit to Construct (MSUP/PTC) power line replacement projects (proposed project), as well as for all project alternatives. An MMCRP table for San Diego Gas & Electric's (SG&E's) proposed project and project alternatives is provided at the end of each issue area in Section D (Sections D.2 through D.14), listing each mitigation measure and outlines procedures for successful implementation.

This section provides the recommended framework for effective implementation of the MMCRP by the CEQA lead agency—the CPUC, the NEPA lead agency—the Forest Service, and other responsible/cooperating agencies. Responsible/cooperating agencies include the California State Parks Department, the Bureau of Land Management, and the Bureau of Indian Affairs (BIA); these agencies may choose to use the MMCRP for their permitting processes.

This MMCRP will be finalized and further, project construction-related details will be added to the MMCRP, if the CPUC and Forest Service approve the project.

H.1 Regulatory Background

H.1.1 California Public Utilities Commission

The California Public Utilities Code confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported. In 1989, this requirement was codified statewide as Section 21081.6 of the California Public Resources Code (PRC). PRC Section 21081.6 requires a public agency to adopt an MMCRP when it approves a project that is subject to preparation of an EIR and where the EIR for the project identifies significant adverse environmental effects. CEQA Guidelines Section 15097 (14 CCR 15000 et seq.) was added in 1999 to further clarify agency requirements for mitigation monitoring or reporting.

The purpose of an MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under PRC 21081.6 when it takes action on SDG&E's application for a PTC and operate the proposed power line replacement projects. If the CPUC approves the application, it will also adopt an MMCRP that includes the mitigation measures ultimately made a condition of approval by the CPUC.

H.1.2 Federal Agencies

The Forest Service is the federal lead agency for preparation of this EIR/EIS, in compliance with the requirements of NEPA, the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations (CFR) 1500 et seq.), and the Forest Service NEPA Handbook (FSH 1909.15) in the evaluation of SDG&E's proposed power line replacement projects.

The Forest Service and Bureau of Land Management (BLM) issue permits and right-of-way (ROW) grants under the authority of Title V of the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1701 et seq.) and BIA issues them under the Act of February 5, 1948, 25 U.S.C. 323 (PL 407). The general terms and conditions for ROWs issued pursuant to FLPMA Section 505, and include measures to minimize damage and otherwise protect the environment; require compliance with air and water quality standards; and require compliance with state standards for public health and safety, environmental protection, and siting, construction, operation, and maintenance of ROWs for similar purposes if those standards are more stringent than applicable federal standards (43 U.S.C. 1765(a)).

The environmental effects analysis in the EIR/EIS identifies impacts and mitigation measures to reduce/eliminate impacts. Each federal agency is responsible for adopting applicable mitigation measures in their Record of Decision for the project. Each agency would be responsible for monitoring implementation of mitigation measures described in their decision through the administration of the permit or ROW grant. The additional mitigation measures identified in the mitigation monitoring program tables presented at the end of each issue area section (Sections D.2 through D.14) of this EIR/EIS will primarily be enforced by the other agencies, and will provide additional protection to public land resources.

H.1.3 Responsible Agencies

Responsible agencies, including the California State Parks Department, will also be responsible for ensuring that mitigation measures are implemented on lands managed by those agencies. Because portions of the projects will occur on lands under the jurisdiction of the California State Parks Department, it will be responsible for ensuring mitigation compliance on its lands.

H.2 Roles and Responsibilities

This section outlines roles and responsibilities specific to the MMCRP. Further, more specific details regarding project roles will be included in the Final MMCRP.

H.2.1 Lead Agency Project Manager and Compliance Managers and Monitors

Under the CPUC contract, the CPUC project manager will assign monitoring and reporting responsibilities to a third-party contractor as described below and will oversee the work of the third-party contractor through review of status reports. The CPUC and federal agency project managers will be notified of non-compliance situations and may suggest measures to help resolve the issue(s). All requests for minor project refinements will be submitted to the CPUC and federal agency project managers for review and approval as needed.

The CPUC will assign monitoring and reporting responsibilities to a third-party contractor that reports to the CPUC project manager. The third-party contractor designated by the CPUC will assign a compliance manager (CPUC compliance manager) as the designated point of contact. The CPUC compliance manager will report to the CPUC project managers. The CPUC compliance manager will consult with the CPUC project managers to determine the appropriate level of inspection frequency, and will also oversee one or more compliance monitors, the on-the-ground personnel responsible for observing and reporting compliance with the terms and conditions of the CPUC PTC. The number of compliance monitors and frequency of site inspections will depend on the number of concurrent construction activities and their locations. The CPUC compliance manager will be an integral part of the project team and will stay apprised of construction activities, schedule changes, and construction progress. The compliance monitors and compliance manager will document compliance through daily site inspection forms, the use of a table tracking APMs and mitigation measures, and monthly reports to the CPUC and federal agency project managers.

H.2.2 Construction Personnel

SDG&E Construction Management Teams

SDG&Es construction management teams would oversee, manage, and coordinate with the construction contractor to ensure overall project construction is completed as required by the project conditions and contract, and within the schedule. The construction management teams ensure that APMs and mitigation requirements are implemented and that work stoppages are appropriately communicated and coordinated.

Construction Contractor

The construction contractors would provide daily construction work schedules and would describe the number, types, and activities of the construction scheduled to occur to ensure adequate monitoring resources are provided. The construction contractors would also report deviations from compliance and spills (e.g., fuel or water) to the compliance monitors.

The construction contractors would have significant responsibilities for compliance with the environmental requirements of the project. The contractors would be responsible for incorporating all project environmental requirements into daily construction activities.

Key environmental responsibilities for contractors include, but are not limited to:

- Verifying that all construction workers attend the project environmental training program prior to beginning work
- Reviewing and understanding the environmental requirements
- Implementing environmental protection requirements and conditions during construction and maintaining compliance with project requirements.

H.2.3 Monitoring

As the lead agency under CEQA, the CPUC is required to monitor the project to ensure that the APMs and mitigation measures are implemented. The CPUC would have primary responsibility for ensuring full compliance with the provisions of the monitoring program. The compliance monitors, under the supervision of the CPUC compliance manager, would monitor construction activities in the project areas on a regular basis, particularly when construction activities have the potential to impact a sensitive resource.

SDG&E may elect to have one or more full-time environmental monitors on site on a daily basis to coordinate specialty monitors (such as biologists and archeologists), assist construction crews with interpreting APMs and mitigation measures, and help correct compliance problems in a timely manner. Environmental monitors would also provide environmental training through the Worker Environmental Awareness Program.

H.2.4 Enforcement

The CPUC, Forest Service, and responsible/cooperating agencies are responsible for enforcing the procedures adopted for monitoring through the CPUC and federal agency compliance monitors operating under the supervision of the respective compliance manager. The compliance monitors would note problems with monitoring, notify designated project members, and report

the problems to the CPUC, Forest Service, and/or the responsible/cooperating agency project manager.

The CPUC, Forest Service, and responsible/cooperating agencies have the authority to halt any construction activity associated with the project if the activity is determined to be a deviation from the approved project, adopted mitigation measures, or APMs.

H.2.5 Mitigation Compliance

SDG&E is responsible for successfully implementing all the adopted mitigation measures and APMs listed in the MMCRP. SDG&E shall inform the CPUC and their monitors in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC, in coordination with the monitors, will assess whether alternative mitigation is appropriate and specify to SDG&E any required subsequent actions.

SDG&E shall inform the CPUC, Forest Service, and/or the responsible/cooperating agencies in writing of any mitigation measures that are not or cannot be successfully implemented. In coordination with their monitors, the CPUC, Forest Service, and/or the responsible/cooperating agencies will assess whether alternative mitigation is appropriate and specify to SDG&E any required subsequent actions.

H.3 Communication

Communication is a critical component of a successful environmental compliance program. In order to avoid project delays and possible work stoppages, environmental and construction representatives would need to interact regularly and maintain professional, responsive communications at all times. Similarly, representatives of SDG&E would need to coordinate closely with the compliance monitors to address and resolve issues in a timely manner. A communication protocol to accurately disseminate information regarding on-going surveys and mitigation measures, construction activities, contractors, and planned or upcoming work to all levels of the project would be established as part of the Final MMRCPP prior to the commencement of construction.

H.3.1 Environmental Compliance Report

The CPUC third-party compliance manager will prepare and distribute environmental compliance reports on a regular basis to the CPUC and federal agencies in order to document the status of APMs and mitigation measures and observations from the field. The third-party compliance manager will also utilize reports prepared by SDG&E that document compliance levels when reporting to CPUC and the federal agencies. The environmental compliance reports will be a tool to keep all parties informed of construction progress and schedule changes. The

frequency of the environmental compliance reports will be determined by the CPUC and federal agencies and outlined in the Final MMCRP.

H.3.2 Coordination with Other Agencies

Several local, state, and federal agencies have jurisdiction over portions of the land in the project area. In addition, some APMs and mitigation measures were derived from specific agency input. SDDG&E would be responsible for contacting agencies and immediately notifying them of compliance issues within their jurisdiction. The CPUC compliance manager may request copies of email correspondences, phone logs, or other documentation between SDG&E and agencies to avoid direct involvement of compliance monitors. However, if an issue regarding compliance with an APM, mitigation measure, or permit requirement under the jurisdiction of an agency remains unresolved, the CPUC/Forest Service compliance monitors may elect to contact the agency to discuss resolution.

H.4 Minor Project Refinements

This section describes the CPUC's process for staff approval of minor project refinements (refinements) that may be necessary due to changes resulting after SDG&E's final engineering of project elements. Approval of minor project refinements would only be granted by the CPUC if the refinements achieve or exceed the level of environmental protection approved in the Final EIR/EIS, are consistent with CEQA requirements, and comply with the intent of the mitigation measures in the Final EIR/EIS. Requests for project modifications that do not fall within the authority delegated to staff must be sought by a Petition for Modification.

H.4.1 Minor Project Refinements Request Process

Requests for CPUC staff approval of a refinement must be made in writing and should include the following:

- A detailed description of the proposed refinement or refinements, including an explanation of why the refinements are necessary;
- Identification of the APMs, mitigation measures, project parameter, or other project stipulation for which the refinements are being requested, and a reference to the approved documents;
- Photos, maps, and other supporting documentation illustrating the difference between the existing conditions in the project area, the approved project, and the proposed refinements;
- The potential impacts of the proposed refinements, including a discussion of each environmental issue area that could be affected by the refinements with

accompanying verification that there would be no increase in significant impacts on resources affected by the project and no new significant impacts, after application of previously adopted mitigation;

- Whether the refinements conflict with any APMs or mitigation measures;
- Whether the refinements conflict with any applicable guideline, ordinance, code, rule, regulation, order, decision, statute, or policy;
- Water/wetland/stormwater-related resource information if the refinements would result in any additional land disturbance, road distance, or width changes to jurisdictional delineation of waters, or changes to water protection best management practices; and
- The date of expected construction at the refinements site area.

The CPUC project managers may request additional information, agency consultations, or a site visit in order to process the request.

H.4.2 Requirements for Staff Approval of Minor Refinements

To be approved by staff, refinements must meet all of the following fixed standards. Refinements must not:

- Be outside the geographic boundary of the study area utilized in the environmental document;
- Create a new significant impact or a substantial increase in the severity of a previously identified significant impact, based on the thresholds used in the environmental document;
- Trigger additional permit requirements¹; Conflict with any APMs or mitigation measures or any applicable guideline, ordinance, code, rule, regulation, order, decision, statute, or policy; or
- Require new conditions for approval, without which the refinements would result in a new significant impact or a substantial increase in the severity of a previously identified significant impact.

Examples of refinements that may be approved by staff after final engineering include, but are not limited to:

¹ For example: grading, disposal, water discharge, dredging, a Clean Water Act Section 404 permit or a California Fish and Game Code Section 1602 Lake or Streambed Alteration Agreement.

- Adding a temporary extra work area (no more than 60 days of use) or substituting a work area, including lay-down and staging, for another work area that is as suitable as or more suitable than the originally proposed work area. The temporary extra work area or substitute work area must be located in a disturbed area with no sensitive resources or sensitive land uses adjacent to the proposed area, must not create any permanent impacts, and must be restored to either its initial condition² or an improved condition.³
- Adjusting the alignment of a project within the study area that was utilized in the original environmental analysis to avoid unanticipated impacts related to cultural artifacts, buried utility infrastructure, hazardous and toxic substances, and other land use impacts including effects on homeowners, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.
- Adjusting the alignment of a project within the study area that was utilized in the original environmental analysis to avoid or adapt to conditions on the ground that vary from the conditions that existed at the time of the original environmental analysis, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.

H.5 Mitigation Monitoring Program Table

Mitigation monitoring program tables are presented at the end of each issue area section (Sections D.2 through D.14). These tables, along with the full text of the mitigation measures themselves, will form the basis for implementation of the MMCRP.

These MMCRP tables are the core document for environmental requirements on the project and will be the primary guideline for determining compliance with the MMCRP. If SDG&E's proposed project is approved by the CPUC and the federal agencies, CPUC and federal agency staff will compile the Final MMCRP based on this table and the final project conditions. A complied copy of the MMCRP tables will be part of the Final MMCRP and should be kept with each crew working on the project, and all supervisory staff working on the project should be familiar with its contents. CPUC and federal agency staff would use the approved MMCRP tables to accurately track the status of APMs and mitigation measures, and will also be used by SDG&E's environmental monitors, compliance monitors, project managers, supervisory staff, and other members of the project team.

² The initial condition of the area is the condition prior to its use as a work area.

³ For example, trash has been cleaned up that was originally on the site or the site is replanted with native vegetation.

H.5.1 Effectiveness Review

The CPUC and the federal agencies may conduct a comprehensive review of conditions that are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined in subsection H.7. If the CPUC and the federal agencies determine that, based on the review, any conditions are not adequately mitigating significant environmental impacts caused by the project, the CPUC and federal agencies may impose additional reasonable conditions to effectively mitigate these impacts. These reviews will be conducted in a manner consistent with the CPUC's rules and practices and federal agency procedures.

H.6 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

40 CFR 1500–1518. Protection of Environment; Chapter V: Council on Environmental Quality.

43 CFR 2800–2809.10. Rights-of-Way Under the Federal Land Policy Management Act, as amended.

43 U.S.C. 1701–1782. Federal Land Policy and Management Act (FLMPA) of 1976, as amended. Public Law 94-579.

California Public Resources Code, Sections 21000–21177. California Environmental Quality Act, as amended.

INTENTIONALLY LEFT BLANK

I. PUBLIC PARTICIPATION

The scoping process and public participation program for the Master Special Use Permit and Permit to Construct (MSUP/PTC) power line replacement projects are described in this section. To collect agency and public input for the environmental review process associated with the project, the California Public Utilities Commission (CPUC) and U.S. Forest Service (Forest Service) administered a public notice and participation program. Although the public scoping requirements of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) differ slightly, the requirements are intended to initiate the public scoping process for the environmental impact report/environmental impact statement (EIR/EIS) preparation; provide information about the power line replacement projects; and solicit information (comments from affected public agencies, governmental representatives, tribal representatives, and the public) that will be helpful in the environmental review process.

I.1 Public Scoping Process – Draft EIR/EIS

The Draft EIR/EIS scoping process consisted of seven elements, each of which is described in more detail subsequently in this section:

1. Publication of a Notice of Preparation (NOP) and Notice of Intent (NOI) of a joint EIR/EIS, which included a joint CPUC and Forest Service Notice of Public Scoping Meeting seeking comments from the public and affected public agencies, as required by CEQA and NEPA.
2. Public scoping meetings and meetings with agencies (October 22 and 23, 2013)
3. Summary of scoping comments in a comprehensive Scoping Report (January 16, 2014)
4. Publication of a public notice of supplemental scoping to provide the public and affected public agencies with an additional opportunity to comment on the topics and alternatives that should be addressed in the environmental document (January 21, 2014)
5. Supplemental scoping meeting and meeting with cooperating and responsible agencies (February 19, 2014)
6. Agency consultation
7. Tribal Consultation.

The scoping process provides an opportunity for governmental agencies and the public to provide comments on the issues and scope of the Draft EIR/EIS. Written comments received during the scoping process become part of the public record and are reviewed and considered by the CPUC and Forest Service in preparing the Draft EIR/EIS.

I.1.1 Notice of Preparation/Notice of Intent

The CPUC issued the NOP, prepared jointly with the Forest Service, of an EIR/EIS for the proposed power line replacement projects along with the operations and maintenance activities proposed for authorization under the MSUP on September 23, 2013. The NOP was distributed to the State Clearinghouse; federal, state, regional, and local governmental and public agencies; elected officials of areas affected by the proposed project; and the general public.

Notices were sent to 1,279 stakeholders, including 108 to federal, state, and local agencies (including 15 copies to the State Clearinghouse and 7 to local libraries); 92 to local organizations/stakeholders (including 17 to local planning groups); 1,045 to the general distribution list of all those identified as property owners within a 300-foot radius of the Proposed Powerline Replacement Projects including the Forest Service Proposed Action TL626 Study Corridor and individuals requesting to be notified of the project; and 34 Native American groups and tribes. In addition, a total of 26 notices were sent via e-mail to agencies and persons requesting to be notified via email. Specifically the following 17 local planning groups were sent a public notice:

- Alpine Community Planning Group
- Bonsall Community Sponsor Group
- Borrego Springs Community Sponsor Group
- Boulevard Community Planning Group
- Crest/Dehesa/Granite Hills/Harbison Canyon Community Planning Group
- Cuyamaca Community Sponsor Group
- Campo/Lake Moreno Community Group
- Descanso Community Planning Group
- Fallbrook Community Planning Group
- Jacumba Community Sponsor Group
- Jamul/Dulzura Community Planning Group
- Julian Community Planning Group
- Pala-Pauma Community Sponsor Group
- Pine Valley Community Sponsor Group
- Potrero Community Planning Group
- Ramona Community Planning Group
- Valley Center Community Planning Group.

The following seven libraries received copies of the NOP and public notice:

- Descanso Branch Library
- Alpine Branch Library
- Campo-Morena Village Branch Library
- Julian Branch Library
- Pine Valley Branch Library
- Ramona Branch Library
- San Diego Public Library.

In addition, the legal notice was published in the San Diego *Union Tribune* (UT) as well as the North County edition of the UT on September 23, 2013; in the *Julian News* on September 25, 2013, and in the *Alpine Sun* on September 26, 2013. The 45-day public scoping period extended from the date of NOP issuance to November 7, 2013, as required by CEQA.

The Forest Service published the NOI to prepare an EIS for the proposed project on September 23, 2013, in the Federal Register (78 FR 58270). The comment period for the NOI ended on November 7, 2013.

The NOP, NOI, and public notice were also made available to the public on the CPUC's website for the proposed project at: <http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF.htm>.

I.1.2 Public Scoping Meetings

The CPUC and the Forest Service conducted two initial public scoping meetings: one on October 22, 2013, starting at 5:00 p.m. at the Julian Elementary School (1704 Cape Horn, Julian, California, 92036), and the second on October 23, 2013, at 5:00 p.m. at the Alpine Community Center (1830 Alpine Boulevard, Alpine, California 91901). In addition, a supplemental scoping meeting was held February 19, 2014, starting at 5:00 p.m. at the Alpine Community Center. These public scoping meetings were conducted to gather comments from the public regarding the scope of the EIR/EIS and for alternatives and potential mitigation measures to be considered.

Approximately 20 and 30 persons, including representatives from local planning groups, organizations, and private citizens, attended the two scoping meetings held on October 22 and 23, 2013, in Julian and Alpine, respectively, and 22 persons attended the meeting held February 19, 2014.

I.1.3 Scoping Report

In January 2014, a comprehensive Scoping Report was published summarizing concerns received from the public and various agencies, which also included copies of comment letters received. In total, 102 letters were received: 41 from federal, state, and local agencies and organizations; 60 from individuals; and 1 from the Pala Tribal Historic Preservation Office. Comments received are included in Appendix E of the project Scoping Report.

The Scoping Report was posted on the CPUC website on January 16, 2014, at: <http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF.htm>

In addition, the following seven libraries received copies of the Scoping Report:

- Descanso Branch Library
- Campo-Morena Village Branch Library
- Alpine Branch Library
- Julian Branch Library

- Pine Valley Branch Library
- Ramona Branch Library
- San Diego Public Library.

The following summarizes the scoping comments received from federal, state, and local agencies; local planning groups; private and public organizations; and the general public. The Scoping Report is based on written comments received during the NOP/NOI public scoping period and from the project scoping meetings held in Julian on October 22, 2013, and Alpine on October 23, 2013. A number of environmental concerns were raised during the public scoping process, which focused on the project's potential effects in several environmental categories. In addition, several alternatives for the project were provided through the public scoping period. Specific topics raised during the public scoping process are summarized below.

Project Description

A commenter noted that the EIR/EIS should clearly define the purpose and need in context of the electric power system reliability, fire risk reduction, power line undergrounding, and power line relocation. Comments on the requirements for increased pole size were noted, requesting the regulations requiring this for fire safety purposes. Another commenter had specific concerns regarding the location of C78 and why the alignment has changed from the original straight alignment. Commenters were concerned with the nature of the construction phase regarding temporary power shutdowns, in addition to requesting the inclusion of a construction phasing plan limiting hours of operation and duration of construction. Additionally, it was noted that reconductoring was done in the past, and explanation as to why new reconductoring is occurring was requested. Concern over the 'whole of the action' and connected actions (i.e., TL637 pole replacement) were expressed. It was also recommended that future appurtenant facilities and smart-grid facilities have their own environmental review when proposed in the future.

Multiple commenters also raised concerns about increased wattage, amperage, and capacity. Commenters stated that larger conductors would lead to increased capacity, as well as double circuits versus single would be growth-inducing as they increase capacity, not reliability. A commenter was concerned that more capacity would lead to more energy projects.

Commenters noted that temperature increases of up to 40% are possible with the new proposed conductor size, and request the current stated amperage carrying capacity of TL626, current wattage, and proposed capacity to which SDGE is upgrading. Concerns that increased capacity would lead to additional energy projects were also expressed.

Project Alternatives

Commenters expressed the need for the environmental analysis to include a full and comprehensive range of alternatives that reduce identified impacts. Suggestions from commenters regarding specific alternatives included distributed generation (DG); undergrounding electric lines; alternative transmission routes; alternative sites and configurations; alternative pole designs regarding materials and height; increased vegetation management and equipment inspections versus replacement; removal of various lines; and alternative technologies, including solar, that achieve a majority of project objectives.

Human Environment Issues

Public and agency comments raised concerns regarding the potential impacts of the proposed project on the human environment, most often expressing concerns with the following key issues:

- Visual and aesthetic impacts of the aboveground transmission lines, poles, and associated access roadway gates to the area's scenic integrity and dark skies
- Increased risk of wildfire hazards due to new transmission lines, and additional circuits and size of conductors
- Conflict with the rural community character and the designated recreational, wilderness land uses, preserves and parklands, as well as proposed Land Management Plan in the project area
- Potential to physically divide an established community, and conflicts with applicable San Diego County land use plans and goals within these plans
- Construction and operations noise due to helicopter noise during construction and maintenance activities and emergency generators. In addition, commenters requested a technical noise study, and that public noticing be based on noise analysis
- Potential health effects associated with electromagnetic fields (EMFs) and potential public safety concerns due to potential for stray voltage, lighting risk, and hazardous wood pole disposal, as well as concerns for maintenance workers in steep slope areas.

Additional human environment concerns expressed include how the proposed power line replacement projects could impact Tribal Lands, as well as effects on cultural and historic resources, and low-income communities.

Natural Environment Issues

The key natural environment concern expressed was how the project would affect the biological resources in the area. Issues raised by the public and responsible agencies included potential direct, indirect, and cumulative impacts on both plant and wildlife special-status species known to occur in the region. Other natural environmental concerns dealt with air quality, hydrology, steep slopes and erosion, and impacts related to wind effects.

Cumulative Projects and Impacts

Commenters indicated that the environmental analysis should provide context for understanding the magnitude of project-related impacts by cumulatively considering the environmental effects of other proposed energy projects in the region. In addition, commenters requested an explanation about the relevancy of the Renewable Energy Transmission Initiative to the proposed project.

Mitigation Measures/Monitoring

Commenters expressed the project should include a mitigation and monitoring plan, with a clearly defined monitoring program which includes timing and success criteria. Additional aspects to mitigation and monitoring concern include avoidance measures, bird mortality monitoring, and sparking mitigation in terms of separation.

Design/ Operation and Maintenance

The public and agencies made comments regarding design aspects of the project, as well as operations and maintenance concerns. Design-related comments were pointed at inclusion of cameras, details of lighting arresters, and design and implementation guidelines for gates within the MSUP areas. Commenters suggested the need for invasive species control and implementation and enforcement of Best Management Practices. Additionally, concerns regarding access roads were raised.

EIR/EIS Administrative and Permitting Issues

Commenters indicated that the project should have an additional scoping period, and a Supplemental Scoping Period was granted from January 21, 2014 through March 7, 2014. Permits and agreements regarding the Clean Water Act and the Rivers and Harbors Act, Encroachment Permits and SDG&E agency agreements were noted by commenters as needing to be enforced.

Refer to the Scoping Report for NOP comment letters received and written comments provided during the scoping meetings.

I.1.4 Supplemental Public Notification/Meeting

A supplemental public scoping period was provided to the public as an additional opportunity to comment on the topics and alternatives that should be included in the Draft EIR/EIS. The supplemental scoping period was opened from January 21, 2014, to March 7, 2014. A supplemental scoping meeting for the proposed power line replacement projects was held February 19, 2014, from 5:00 p.m. to 7:00 p.m. at the Alpine Community Center, located at 1830 Alpine Boulevard, Alpine, California 91901. Approximately 20 persons, including representatives from local planning groups, organizations, and private citizens, attended the supplemental scoping meeting.

Table I-1 summarizes additional issues raised during the supplemental scoping period. In March 2014, the supplemental comment letters received were posted on the public website at: http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF_Supplemental_Scoping_Comments.htm.

Table I-1
Summary of Additional Issues Raised During Supplemental Scoping

Environmental Issue Area/ EIR/EIS Section	Potential Issues or Impacts
Aesthetics/Visual Resources Section D.2	<ul style="list-style-type: none"> • Yellow striping on new steel poles and use of reflective conductors could affect the visual character of the project area. • Lighting on taller steel poles and use of colored balls on conductors, if required, could affect the visual character of the project area.
Biological Resources Section D.4	<ul style="list-style-type: none"> • Lighting if used on steel poles could affect wildlife in project area. • Heavy equipment could damage root systems of older trees along alignment. • Project construction could exceed take acreage allotted in the 1995 SDG&E Natural Community Conversation Plan (NCCP).
Hazards, Hazardous Materials Section D.7 (Public Health)	<ul style="list-style-type: none"> • Wind speeds exceed rating of pole/conductors. • Harmonic rocking of lines during high winds could lead to failure/fire risk.
Fire D.8 (Fire and Fuels Management)	<ul style="list-style-type: none"> • Doubling circuits on certain transmission lines can increase fire risk. • Constructing power lines in areas designated as wilderness could increase fire risk.
Electromagnetic Fields Section D.15	<ul style="list-style-type: none"> • Potential public health risks due to EMF.
Alternatives	<ul style="list-style-type: none"> • Non-wire alternative using micro-grids in town centers such as Boulevard and off-grid system. • Like-for-like alternative: use of conductors of the same or similar capacity to the conductors in use now.

Table I-1
Summary of Additional Issues Raised During Supplemental Scoping

Environmental Issue Area/ EIR/EIS Section	Potential Issues or Impacts
	<ul style="list-style-type: none"> • Evaluate removal of TL626 from system. • Forest Service Proposed Action for C157 should follow road alignment near Barrett Lake. • Electric lines should be removed from private property in Mount Laguna community.

I.1.5 Agency Consultation

The CPUC and Forest Service staff, and the EIR/EIS project team, met with federal cooperating and state responsible agencies on August 28, 2013 to introduce the proposed project and discuss each agencies decision-making process and on February 19, 2014 to discuss the status of the environmental document and project alternatives. On March 5, 2014, CPUC and Forest Service staff and the EIR/EIS project team met with the City of San Diego to discuss the Forest Service Proposed Action.

I.1.6 Tribal Consultation

Federal agencies regularly conduct formal consultation with tribal governments about ongoing activities and specific projects as part of their government-to-government consultation responsibilities, in accordance with the requirements of Section 106 of the National Historic Preservation Act (NHPA). During the early planning stages of this analysis (March 2013), the Forest Service conducted informal consultation with the Inaja-Cosmit Band of Indians and the Bureau of Indian Affairs (BIA) to discuss TL626 relocation options that have the potential to have direct effects on reservation lands. The Forest Service also invited the four tribal governments with reservation lands that would potentially be directly affected by SDG&E’s proposed project (Viejas, Barona, Campo, and Inaja) and the BIA to become cooperating agencies in April 2013. The Forest Service, in conjunction with the BIA, also conducted informal consultation with tribal leaders for the Campo Kumeyaay Nation in May 2014 to discuss SDG&E’s proposal to upgrade TL6931 to a double circuit in order to replace TL626.

When the draft EIR/EIS for the proposed project is determined to be ready for public comment, tribes will be invited by the Forest Service and the BLM to initiate formal consultation on the proposed project with the intent of engaging in meaningful consultation with tribes regarding concerns or comments they may have about the proposed project, and taking those into consideration in the decision-making process. In conjunction with the government-to-

government consultation process, federally recognized tribes in the project area have been, and will continue to be, included in all project notifications, as appropriate.

I.2 References

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

40 CFR 1500–1518. Protection of Environment; Chapter V: Council on Environmental Quality.

California Public Resources Code, Sections 21000–21177. California Environmental Quality Act, as amended.

INTENTIONALLY LEFT BLANK

J. DISTRIBUTION OF THE DEIR/DEIS

The NEPA regulations require the lead agency to list agencies, organizations, and persons to whom this document is sent. The lead agency is required to circulate the entire statement, unless in cases where the statement is unusually long, the agency may circulate the summary instead. The entire statement is required to be sent to:

- Federal Agencies with jurisdiction by law or special expertise, Tribal Governments, and any appropriate Federal, State or local agency authorized to develop and enforce environmental standards. The Forest Service maintains a list of federal agencies, and provides either a notice of where the document may be found on the web, a copy of the document on disk, or a printed copy depending on the agencies preference.
- The applicant, in this case SDG&E.
- Any person, organization, or agency requesting the entire environmental impact statement.

The required distribution list is included in Appendix J-1.

The document and associated appendix material will be available on the web on the project's webpage (<http://www.cpuc.ca.gov/environment/info/dudek/CNF/CNF.htm>) and paper copies will be available at following local libraries:

- Descanso Branch Library
- Alpine Branch Library
- Campo-Morena Village Branch Library
- Julian Branch Library
- Pine Valley Branch Library
- Ramona Branch Library
- San Diego Public Library.

The summary will also be distributed to the project mailing list, which includes any organization or person that provided comments during both scoping periods, or that signed in during any of the public meetings. Copies of the Draft EIR/EIS are available in print or on disk by request.

J.1 Opportunity to Comment

The lead agencies are providing a 60-day comment period for the Draft EIR/EIS. Comments may be submitted in a variety of ways: (1) by U.S. mail, (2) by electronic mail (email), or (3) by attending and handing in written comments at the Draft EIR/EIS public informational meeting.

By Mail: If you send comments by U.S. mail, please use first-class postage and be sure to include your name and a return address. Please send written comments on the scope and content of the EIR/EIS to:

Lisa Orsaba, California Public Utilities Commission
Will Metz, Forest Supervisor, Cleveland National Forest
c/o Dudek
605 Third Street
Encinitas, California 92024

By Electronic Mail: Email communications are welcome; however, please remember to include your name and return address in the email message. Email messages should be sent to CNFMSUP@dudek.com, with a subject line “SDG&E Master Permit EIR/EIS.”

J.2 Public Meetings

Informational meetings will be held during the comment period. These meetings are designed to answer questions about the document or the comment process. Written comments may be submitted at the meeting, but oral comments will not be recorded at the meeting. Information about the meeting location and time is provided in the Notice of Availability distributed by the CPUC for the EIR/EIS.

J.3 Forest Service Objection Process

The Forest Service MSUP project will be subject to the predecisional administrative review process pursuant to 36 CFR 218, Subparts A and B. This review process, commonly referred to as the Forest Service “Objection Process”, will only apply to the Forest Service actions. Under the objection process, individuals and entities who have submitted timely, specific written comments regarding a proposed project or activity that is subject to the 36 CFR 218 regulations during any designated opportunity for public comment (such as this comment period for the Draft EIR/EIS) may file an objection. It is the commenter’s responsibility to ensure timely filing of written comments. When there is a question about timely submission of comments, timeliness shall be determined as follows: (i) Written comments must be postmarked by the U.S. Postal Service, emailed, faxed, or otherwise submitted (for example, express delivery service) by 11:59 p.m. in the Pacific time zone on the 60th calendar day following publication of the Notice of Availability (NOA) in the Federal Register; (ii) Hand-delivered comments must be submitted at the Draft EIR/EIS public informational meeting.

The objection period will open when the Forest Service issues the Final EIR/EIS and a Draft Record of Decision. The objection period is open for 45 days. Issues raised in the objection must be based on previously submitted timely, specific written comments regarding the proposed project unless based on new information arising after designated opportunities. More information on the objection process will be provided in the Final EIR/EIS.

K. REPORT PREPARATION

K.1 List of Preparers

A team of technical and administrative personnel led by Dudek prepared this document under the direction of the California Public Utilities Commission (CPUC) and U.S. Forest Service (Forest Service). The Forest Service also consulted with their interdisciplinary team (IDT) from the Trabuco, Palomar, and Descanso ranger districts during the development of this Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Though individuals have primary responsibility for preparing sections of the EIR/EIS, the document is an interdisciplinary team effort. To ensure quality control, an internal review of the document occurs throughout preparation. Specialists at the Forest Service also review the analysis and supply information, as well as provide document preparation oversight. Contributions by individual preparers may be subject to revision by other Forest Service specialists and management during internal review. Table K-1 presents the list of the primary report preparers followed by those that also assisted in preparing the resource section.

Table K-1
List of Preparers

Name	Job Title	Primary Responsibility
<i>California Public Utilities Commission (CPUC)—EIR Lead Agency</i>		
Lisa Orsaba	Regulatory Analyst	Project Manager, CEQA
<i>U.S. Forest Service (Forest Service)—EIS Lead Agency</i>		
Robert Hawkins	Consulting Natural Resource Planner for the Forest Service	Project Manager, NEPA
Debbie Hobbs	Land and Realty Specialist	Project Manager, Forest Service
<i>Dudek</i>		
John Porteous, BA, MA, CEP	Principal	Project Manager, Principal in Charge
Rica Nitka, BS	Project Manager	Project Coordinator
Josh Saunders, BA, MSc	Environmental Specialist	Aesthetic/Visual Resources, Recreation, and Land Use
David Deckman, BS, MS Jennifer Longabaugh, BA, MPL, LEED AP ND	Director of Air Quality Services Environmental Specialist	Air Resources, Greenhouse Gases, and Global Climate Change
Brock Ortega, BS Melissa Blundell, BS, MS	Principal, Senior Wildlife Biologist Biologist	Biological Resources: wildlife, vegetation, and wetlands
Micah Hale, BS, MA, PhD, RPA Stephanie Tang, BA	Senior Archaeologist Environmental Specialist	Cultural and Paleontological Resources
Emily Lyons, BS, MELP	Environmental Specialist	Public Health and Safety, Public Services and Utilities, Transportation and Traffic, and Electromagnetic Fields
Michal Huff, BS	Senior Project Manager	Fuels and Fuels Management

**Master Special Use Permit and Permit to Construct Power Line Replacement Projects
K. REPORT PREPARATION**

**Table K-1
List of Preparers**

Name	Job Title	Primary Responsibility
Scott Eckardt, BS, MA, RPF Markus Lang, BS	Environmental Specialist Resource Specialist	
Dylan Duvergé, BA, MS	Hydrogeologist, Environmental Specialist	Hydrology and Water Quality, Transportation and Traffic
Brian Grover, BS, AICP, MRP Mike Greene, BS, INCE Emily Lyons, BS, MELP	Project Manager Acoustician Environmental Specialist	Noise
Andrew Greis, BA Randy Deodat, BA	GIS Technician GIS Technician	GIS/Mapping GIS/Mapping
Rebecca Golden-Harrell, BA, MS Amy Seals, BA, MA	Technical Editor Technical Editor	Administrative Record/Editing Administrative Record/Editing
Hannah DuBois, BA Devin Brookhart, BA	Publications Production Lead Publications Production Assistant	Document Formatting and Production
<i>Subconsultants</i>		
Paul Scheuerman (Scheuerman Consulting)	President	Electrical Engineering Support

L. INDEX

Additional Alternatives	ES-8
Agency preferred alternative (federal)	A-14
Agency use of this document	A-8
Air quality	A-3
Airport Influence Area	D.7-13
Alternatives	ES-5
Alternatives eliminated from consideration	C-8
Applicant	ES-1
Applicant Proposed Measures	ES-11
Archaeological resources	ES-25
Area of Critical Environmental Concern	D.2-62
Areas of Controversy	ES-4
Background	A-5
Back Country Non-Motorized	D.10-11
Biological resources	D.4-1
Best management practices	B-64
Bureau of Land Management	C-1
Bureau of Indian Affairs	A-1
California Independent System Operator	ES-8, D.2-90
California Department of Parks and Recreation	D.2-63
CEQA Significance Criteria/Indicators under NEPA	D.2-64
Conductor	B-10
Cooperating agencies	A-2
Cultural resources	B-62
Cumulative effects	ES-5
Decision framework	A-8
Direct impact	D.4-90
Effects found not to be significant	G-8
Electromagnetic fields	D.15-1
Environmentally superior alternative	ES-17
Federal proposed action	ES-4
Fire history	D.8-1
Fire and fuels management	D.8-1
General Order 95	D.7-10
Greenhouse gas	D.6-1
Growth-inducing effects	G-1
Historical resources	D.5-1

Hydrology and water quality	D.9-1
Indirect impact	D.4-99
Invasive non-native species	D.4-123, D.4-127
Irreversible and irretrievable commitments of resources.....	G-4
Issues to be resolved	ES-19
Key Observation Point (KOP)	D.2-2
Land Management Plan.....	ES-7
Land Management Plan Amendment.....	D.2-92
Land use and planning.....	D.10-1
Lead agency	D.10-8
Level of Service	D.14-16
Local Responsibility Area.....	D.8-3
Location of project.....	B-2
List of preparers	K-1
Master Special Use Permit.....	ES-1
Mitigation Monitoring, Compliance, and Reporting Program.....	D.1-5
National forest management	D.4-76
Noise	D.11-1
No Action Alternative.....	D.8-60
No Project Alternative	D.8-61
Opportunity to comment on DEIR/DEIS.....	J-1
Permit to Construct	ES-1
Permits required	A-8
Plan of Development.....	A-2
Preliminary Remediation Goal	D.7-6
Private holdings/land(s)	ES-1, A-1, B-2
Project components.....	D.2-66
Project overview	ES-2
Project objectives	A-8
Public health and safety	D.7-1
Public participation	I-1
Public scoping issues	ES-4
Public services and utilities.....	D.12-1
Purpose and need for action.....	A-7
Reader's Guide to the EIR/EIS	A-13
Recreation	D.13-1
Required Alternatives	C-1
Research natural areas.....	D.4-73

Responsible Agencies	A-9
Riparian conservation areas	D.4-75
Scenery Management System	D.2-1
Scenic integrity objectives	D.2-4
SDG&E’s proposed project	ES-2
Short-term uses and long-term productivity	G-8
Special interest areas	D.10-31
Special-status plant and animal species	D.4-17
Suppression effectiveness and firefighter access	D.8-40
Traditional cultural properties	E-19
Transportation and traffic	D.14-1
Tribal consultation	I-8
Unavoidable adverse effects	D.2-115
Underground storage tank	D.7-2
Vegetation conditions	B-61
Volatile organic compound	D.3-5
Visual resources	D.2-114
Visual Resources Management System	D.2-114
Watershed	D-9-1
wildland–urban interface	D.8-22

INTENTIONALLY LEFT BLANK