

Section 1 – General Components and Comments

After the Sunrise Powerlink Project was approved by the CPUC in December 2008 and the BLM in January of 2009, SDG&E began the process of completing final project design and engineering. On May 14, 2010, SDG&E submitted its Final Project Modification Report (PMR) to the CPUC and BLM. The PMR defines changes made to the project as a result of mitigation requirements or federal and State regulations along the Sunrise Powerlink Transmission Project route after publication of the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS).

All changes were reviewed by the lead agencies, CPUC and BLM, along with the cooperating, responsible and resource agencies, and were published on the CPUC website and made available for public review. Each proposed modification was reviewed to determine whether the changes have resulted in increased levels of environmental impact or new significant impacts and whether the proposed modifications are consistent with and/or validate the environmental analysis such that any additional CEQA or NEPA documentation is or is not required.

Project modifications developed by SD&GE are addressed in two separate sections. Section 2 presents discussion of each individual modification. This section, Section 1, addresses the project changes that are general in nature and applicable to a number of individual route modifications, and reviews whether they are consistent and/or validate the environmental analysis. Section 1 includes a discussion of the following issues:

- **Section 1.1, Revised Project Components.** SDG&E defines different types and quantities of project components that would be required during construction and operation. The components and their impacts include the following:
 - Infrared lighting for nighttime aircraft safety;
 - Marker balls on conductors for aircraft safety;
 - Modified construction yard locations and sizes; and
 - Modified structures for communication facilities.
- **Section 1.2, Biological Resources.** The specific changes in effects resulting from each modification subunit are explained in Section 2. The section addresses the majority of the modified subunits, as well as the following two issues:
 - Comparison of acreage affected for various special status species; and
 - Project effects on golden and bald eagles.
- **Section 1.3, Water Supply.** An attachment to the PMR, entitled “Water Resources Availability Study, Non-Groundwater Sources, Sunrise Powerlink Environmentally Superior Southern Route,” defines sources of surface water to be used during construction. Section 1.3 defines impacts associated with water transportation for the PMR and compares them to those defined in the Final EIR/EIS.
- **Section 1.4, Helicopter Construction.** SDG&E proposes increased use of helicopters in order to reduce ground disturbance from access roads. This topic, and impacts associated with helicopters, is addressed in Section 1.4.
- **Section 1.5, Fire Risk.** Section 1.5 presents an updated analysis of fire risk based on the revised transmission line route, and compares impacts to those defined in the Final EIR/EIS.

- **Section 1.6, Air Emissions.** Section 1.6 evaluates the air emissions associated with the modified project and compares them to approved project (FESSR). It also considers the adopted mitigation measures and whether they are still necessary.
- **Section 1.7, Cultural Resources.** The specific changes in effects resulting from each modification subunit are explained in Section 2. Section 1.7 addresses the cultural resources data and analysis used to compare the modified project with the FESSR.
- **Section 1.8, Construction Noise.** Attachment C to the PMR, entitled “Powered Haulage Estimated Acoustical Impact Report,” defines the increase in noise along the traffic haul routes. Section 1.8 defines impacts associated with transportation noise for the PMR and compares them to those defined in the Final EIR/EIS.
- **Section 1.9, Cumulative Projects.** An updated assessment of cumulative impacts is presented in Section 1.9.
- **Section 1.10, Public Notification.** Public concerns were raised about notification required under CEQA and NEPA; these are addressed in this section.

1.1 Revised Project Components

The discussion below presents an evaluation of general project modifications included in Final PMR document, Section 2 (Structure, Yard, and Telecom Update). These project modifications have been reviewed to consider whether they would result in significant effects not discussed in the EIR/EIS and whether the Final EIR/EIS is still valid and consistent.

A number of public comments were received regarding the revised project components addressed in PMR Section 2. All comments were considered and where comments were specific to the PMR document, they have been incorporated into the discussion below.

1.1.1 Infrared Lighting

SDG&E Modification. The PMR presents information on infrared lighting to be used on some of the project towers (see PMR Table 2-1). Infrared lighting was not proposed in the Final EIR/EIS, and was not evaluated as a component of the FESSR. However, Mitigation Measure T-11b (Consult with and inform U.S. Customs and Border Protection), required SDG&E to consult with U.S. Customs and Border Protection. During final design agency meetings, SDG&E was informed by the Department of the Navy and the US Border Patrol that infrared lighting would be required for helicopter safety in the vicinity of the Sunrise towers. These two agencies have operational facilities in the project area, and are concerned about nighttime flight safety.

SDG&E is working with the Federal Aviation Administration (FAA), Marine Corps Air Station (MCAS) Miramar, California Highway Patrol, and others to determine aircraft safety lighting for the transmission towers. FAA determines whether a structure poses a hazard to navigable airspace, and in those determinations FAA includes advisory guidance on what markers or lighting should be used to ensure no hazard. These lighting and marking recommendations are based on FAA guidance, *Obstruction Marking and Lighting Advisory Circular, No. AC/70/7460-1K*. FAA’s recommendations on marking and lighting may vary based on terrain features, weather patterns, and geographic location, and, depending on the hazard potential, may result in a recommendation for higher standards for increased visibility of towers to ensure safety to air navigation. SDG&E has also been working closely with the Department of the Navy and Border Patrol regarding the project, given that both those agencies use navigable airspace in the vicinity of certain project structures and have requested that the lighting and marking for the project

be consistent with those agencies' operational needs. The Department of the Navy and the Border Patrol have requested the use of infrared lighting to ensure safety of aircraft during nighttime flights.

The proposed infrared safety lighting would be solar-powered, would operate from dusk to dawn, and would not be visible to humans. It would be visible to certain insects, but not to birds or bats.

Final EIR/EIS Evaluation. The Final EIR/EIS did not analyze the potential environmental effects of infrared tower lighting because tower lighting was not included as a project design feature when the Final EIR/EIS was prepared. However, the only potential environmental impacts that could result from infrared tower lighting would be indirect impacts to birds and bats that may be attracted to common, nighttime flying insects clustered around the infrared lights. The potential for such impacts was addressed in the Final EIR/EIS and is discussed below.

Public Comments. Commenters suggested that the addition of a new type of lighting on the transmission towers requires preparation of a Supplemental EIR/EIS.

Evaluation. Because the proposed infrared safety would not be visible to humans, it would not have any visual impacts. Therefore, CPUC and BLM evaluated the proposed modification in the context of potential direct impacts due to collision with the transmission towers on birds and bats that may be attracted to insects clustered around the lights.

The potential effects of infrared structure lighting on birds and bats are discussed below.

Impacts to Birds. Most birds migrate at night, but migration corridors have never been systematically studied. Impacts to birds as a result of collisions with project features were analyzed in the Final EIR/EIS as Impact B-10 (Presence of transmission lines may result in electrocution of, and/or collisions by, listed or sensitive bird species). Analysis in the Final EIR/EIS assumed that night-migrating birds would collide with transmission line features and that the resulting bird mortality would be a significant and unmitigable (Class I) impact to listed and sensitive bird species. Impacts to non-sensitive bird species and bird species that migrate during the day were determined to be Class II (significant but mitigable) in the Final EIR/EIS with implementation of Mitigation Measure B-10a (Utilize collision-reducing techniques in installation of transmission lines).

Mitigation Measure B-10a is presented below, with underlined notes that relate to this discussion.

B-10a: Utilize collision-reducing techniques in installation of transmission lines. The applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994" (APLIC, 1994) as follows.

- Placement of towers and lines shall not be located above existing towers and lines, topographic features, or tree lines to the maximum extent practicable. Power lines should be clustered in the vertical and horizontal planes aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns to the maximum degree feasible. [NOTE: This provision is required along the entire approved route.]
- Overhead lines that are located in highly utilized avian flight paths shall be marked utilizing fixed mount Firefly Flapper/ Diverters, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce avian collision with power lines. [NOTE: the Final EIR/EIS did not identify any portions of the FESSR as "highly utilized avian flight paths" so based on flight paths alone, no diversion devices would be installed along the approved route. This bullet and the bullets below would not apply to this route based on flight path use. See further discussion below.]
- Where such markers are installed, the applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines (CEC, 2007). The applicant shall develop a draft study protocol and submit it to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review. The applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the applicant shall coordinate with the Wildlife Agencies and State Parks (for markers in ABDSP) to develop alternate collision protection measures.
- The applicant shall implement an avian reporting system for documenting bird mortalities to help identify problem areas. The reporting system shall follow the format in Appendix C of "Suggested Practices for Avian Protection On Power Lines: The State of the Art in 2006" (APLIC, 2006) or a similar format. The applicant shall submit a draft reporting protocol and reporting

system to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review and approval. The applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained. The applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Wildlife Agencies, State Parks (for problem areas in ABDSF), CPUC, and BLM prior to implementation. Bird mortality shall continue to be documented in the problem areas per the avian reporting system to determine the effectiveness of the mortality reduction methods and to determine if new methods need to be developed.

As stated in the Mitigation Monitoring, Compliance and Reporting Plan, this mitigation measure would be required along the length of the FESSR except for underground locations. Mitigation Measure B-10a requires the utilization of collision-reducing techniques in highly utilized bird flight paths. The Final EIR/EIS did not identify any portions along the FESSR as “highly utilized avian flight paths.” Likewise, there are no “highly utilized avian flight paths” along the modified project. Therefore implementation of Mitigation Measure B-10a would not require installation of bird flight diverter devices or a funded study of bird mortality.

However, the modified project now has identified infrared lighting in a number of locations. Night-flying insects may be attracted to these locations, and in turn, the presence of insects may attract birds. Therefore, to be conservative and to reduce the likelihood that birds would collide with conductors in areas near infrared lights, the CPUC and BLM will implement Mitigation Measure B-10a in its entirety for conductor spans adjacent to infrared lights and will thus require installation of bird flight diverter devices and defined study to determine the effectiveness of such devices. This will ensure that these impacts remain the same and that the inclusion of the infrared lights is consistent with the conclusions in the Final EIR/EIS and that the Final EIR/EIS remains valid. Mitigation Measure B-10a further requires SDG&E to implement additional protective measures to reduce mortality in identified problem areas. For example, bird flight diversion devices could be concentrated near areas of infrared lights to help avoid collisions by birds that may be attracted to the insects that may be attracted to the infrared lights. Implementation of this mitigation measure in full (including installation of diversion devices near infrared lights) would ensure that impacts to birds from infrared lighting on towers are not significant or substantially more severe than that analyzed in the EIR/EIS and that the impact to birds is consistent with the analysis in the Final EIR/EIS.

Impacts to Bats. The potential for bats to collide with transmission towers was not addressed in the Final EIR/EIS. The risk of bat collision with towers is not a well-documented or understood phenomenon. Bats (like humans) do not see infrared lights. However, like birds, bats may be attracted insects that are attracted to the infrared lights, which could potentially result in collision. Much of what is known about bat collision with any type of towers results from anecdotal data and not from formal studies; collision studies completed to date have focused on birds.

Bat collisions with a variety of man-made structures including television towers, communication/cell towers, large windows, buildings, and barbed-wire fences have been documented and reported in both bat collision studies and bird/tower collisions studies. The number of bats killed as a result of collision with communication or transmission tower structures appears to be small. One of the earliest documented collision events occurred in Kansas, where five bat mortalities were recorded at a large television tower (Van Gelder 1956). In Florida, a 25-year monitoring study of a television tower recorded 54 bat collisions across seven species (Crawford and Baker 1981). Similarly, an 18-year study collected 12 bats underneath another television tower in Florida (Zinn and Baker 1979). Other small numbers of bats have been recorded on communications towers in North Dakota, Tennessee, and Canada (Avery and Clement 1972; Ganier 1962; and Gollop 1965, respectively).

Often, the risks associated with birds are similarly applied to bats. However, a flaw in this approach is that there are significant differences in the flight behaviors and the natural histories of birds versus bats, and bats, unlike birds, have the ability to echolocate. Furthermore, many of the current studies have

focused on the impact that wind turbines have on bat mortality, with the assumption that similar mortalities occur with transmission line infrastructure despite the operational differences between wind turbines and other types of transmission line infrastructure.

In modern studies using thermal imaging cameras, bats have been observed flying through extremely complex habitat including areas with transmission lines. While no collisions were reported, observers noticed the acrobatic nature of bat flight, and their ability to avoid obstacles and complex structures. Habitat complexity also plays a role in how bats partition the landscape, with some species avoiding cluttered areas (Sleep and Brigham 2003).

Conclusion. The addition of infrared lighting is not expected to result in a significant impact or to substantially increase the severity of effect to bird or bat species. The analysis regarding collision impacts to birds in the Final EIR/EIS is consistent with the addition of infrared lighting and the modification does not reduce the validity of the Final EIR/EIS. The addition of an element or project component not analyzed as part of the adopted project, but included within the range of impacts studied, does not require the preparation of a supplemental EIS. (*In re: Operation of the Missouri River System Litigation v. US Army Corps of Engineers*, 516 f.3d 688 (2007).) However, to be conservative, the CPUC and BLM will require full implementation of Mitigation Measure B-10a at conductor spans adjacent to infrared lights. The addition of infrared lighting on transmission towers is not expected to result in any new significant impacts to bat species (as a result of collision) because of their flight behaviors, natural history, and echolocation abilities. Impacts to bat species with the inclusion of infrared lighting would be consistent with the analysis in the Final EIR/EIS and would not reduce the validity of the Final EIR/EIS. Therefore, this project change would not create a new impact or substantially increase the severity of a previously identified significant impact.

1.1.2 Marker Balls

SDG&E Modification. After SDG&E completed final project design and defined specific tower and span heights, the Department of Defense and Homeland Security (Border Patrol) identified the specific location of marker spheres would be required on static lines (at the top of the towers, above the conductors) that would ensure aircraft safety in compliance with Mitigation Measure T-11b: Consult with and inform U.S. Customs and Border Protection. The PMR states that over 1,300 marker balls would be required on 134 project spans (see PMR Table 2-2) based on the location of each span (near airports, at road crossings, and at crossings of canyons) as determined by FAA regulations.

The importance of collision avoidance devices for air safety, such as marker spheres and infrared lights (see Section 1.1.1), is clear from the history of aircraft collision with transmission lines. There have been accidents resulting from collision of aircraft with SDG&E transmission line, and these have resulted in loss of life. One accident occurred on Camp Pendleton, where Marine helicopter hit a transmission tower at night. Another accident occurred along the existing 500 kV transmission line between the Imperial Valley Substation and the San Diego area (the Southwest Powerlink or SWPL) soon after it was constructed and prior to installation of marker balls. Installation of marker spheres also decreases the likelihood of wildfires in the project areas, since aircraft accidents are one cause of wildfires. The FAA's *Marking and Lighting Advisory Circular*, no. AC/70/7460-1K, governs recommendations for markers. Chapter 2, section 20, of the Advisory Circular states that for aviation safety any structure, including appurtenances, that exceeds 200 feet in height above ground level should normally be marked and/or lighted. While none of the transmission towers exceed 200 feet in height, there will be marker balls on Sunrise wire spans that exceed 200 feet above ground level. The marker balls are installed for the safety of flight crews whose aircraft may cross the Sunrise transmission lines at low levels. In addition to wire spans that exceed the 200 foot elevation, agencies such as the Customs and Border Patrol (CBP) have

requested that marker balls be installed on a number of spans at road crossings, which is consistent with SDG&E practice. SDG&E has been working closely with the FAA, Department of the Navy, and the Border Patrol to identify the appropriate use of markers on the static lines for air safety. These marker balls also comply with Mitigation Measure B-10a, required by the CPUC and BLM to reduce the risk of avian collision.

SDG&E is now proposing the use of marker balls on 134 conductor spans, covering a majority of the project route. Of those 134 spans:

- Five (4%) would be freeway (I-8) spans,
- One (<1%) would be a state highway (SR67) span,
- Nine (7%) would be local road spans,
- One (<1%) would be across Sugarloaf Mountain,
- One (<1%) would be across a rail line, and
- 117 (87%) would be non-travel corridor spans of mostly undeveloped terrain.

In total, these 134 spans would utilize 1,345 marker balls. Altering a project to increase the use of certain components analyzed in the EIS does not necessarily require the preparation of supplemental environmental analysis. *Arkansas Wildlife Federation v. US Army Corps of Engineers*, 431 F.3d 1096 (2005), no supplementation of an EIS is necessary if the environmental impact of the alteration of a project is insignificant and would have a positive rather than negative environmental impact.

Final EIR/EIS Evaluation. The Project Description in the Final EIR/EIS (Section B.3.2.4) states the following:

Hardware that is not associated with the transmission of electricity would not be installed as part of the Proposed Project. However, aerial marker spheres or aircraft warning lighting may be required for the conductors or structures per Federal Aviation Administration, U.S. Customs and Border Protection, or U.S. Department of Defense regulations. Structure proximity to airports and structure height are the determinants of whether FAA regulations would apply.

The visual impact analysis presented in the Final EIR/EIS was based on the project defined in the EIR/EIS project description, as defined above. Marker spheres are standard requirements for transmission lines and are installed to reduce safety risk. No specific locations for aerial marker spheres were identified by SDG&E. However, the visual impact analysis in the Final EIR/EIS assumed that built facilities included marker spheres at major roadway and canyon crossings. For example, the visual simulation presented in EIR/EIS Figure E.1.3-10B included marker balls on the Interstate 8 Alternative freeway crossing.

Public Comments. Commenters suggested that the visual impact of marker balls was not evaluated in the Final EIR/EIS and that these locations could result in a new or more severe visual impact.

Evaluation: Visual Impacts. As stated in Section D.3.4.1, the factors considered in determining impacts on visual resources included: (1) scenic quality of the project site and vicinity; (2) available visual access and visibility, frequency and duration that the landscape is viewed; (3) viewing distance and degree to which project components would dominate the view of the observer; (4) resulting contrast of the proposed facilities or activities with existing landscape characteristics; (5) the extent to which project features or activities would block views of higher value landscape features; and (6) the level of public interest in the existing landscape characteristics and concern over potential changes. Impacts on visual resources within the study area could result from various activities including: structure and line construction, substation construction, establishment of construction staging areas and access roads, and project operation or presence of the built facilities. Because the need

for marker balls was identified in the Project Description of the EIR/EIS, the visual impact analysis in the Final EIR/EIS assumed that the built facilities included marker spheres at major roadway and canyon crossings, see Figure E.1.3-10B for a visual simulation of the Interstate 8 Alternative freeway crossing that includes the use of marker balls. However, the specific locations of marker spheres were not known. The visual impact analysis for the FESSR is presented in Final EIR/EIS Sections E.1.3, E.2.3, and E.4.3. This analysis concludes that the installation of the project in the FESSR would create numerous significant and unmitigable impacts (Class I) along the route due to the introduction of a new industrial facility with characteristics that are inconsistent with the environmental setting of this area. The significant impacts identified are as follows:

- Impact V-58: Inconsistency with BLM VRM Class III Management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 46 at the Plaster City West OHV Staging Area
- Impact V-60: Inconsistency with BLM VRM Class II Management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 48 south of Table Mountain ACEC on Old Highway 80 (Airport Mesa)
- Impact V-62: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 50 on westbound I-8
- Impact V-66: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 53 on westbound Alpine Road
- Impact V-68: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 55 on Moreno Boulevard
- Impact V-73: Increased structure contrast, industrial character, structure prominence and view blockage associated with the Chocolate Canyon Option
- Impact V-74: Inconsistency with BLM VRM Class II Management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 60 on McCain Valley Road at Sacatone Overlook Road
- Impact V-75: Inconsistency with BLM VRM Class II Management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 61 on at Carrizo Overlook
- Impact V-76: Inconsistency with BLM VRM Class II Management objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 62 on McCain Valley Road South of Cottonwood Campground
- Impact V-77: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Viewpoint 63 on the Pacific Crest National Scenic. Triad Just north of Fred Canyon Road.
- Impact V-89: Increased structure contrast, industrial character, structure prominence and view blockage when viewed from Key Viewpoint 79 on La Posta Truck Trail
- Impact V-90: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining along the BCD South Option
- Impact V-82: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 67 on northbound South Buckman Springs Road
- Impact V-83: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 68 on Lyons Valley Road

- Impact V-84: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 69 on Japatul Road
- Impact V-86: Star Valley Option: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 70 on Star Valley Road
- Impact V-90: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 90 on the PCT and South Boundary Road

The markers are intended to enhance safety by preventing aircraft collision. This is done by making conductor spans more visible in locations where aircraft are likely to fly. When viewed at distance, lattice towers take on a characteristic transparency and conductor spans are generally not visible. Given that many of these markers would be viewed against the sky, the location of the conductor spans would become substantially more apparent. The large number of marker balls defined by SDG&E based on recommendations by FAA and other agencies increases the likelihood that several consecutive spans with strings of marker balls would be visible in a single frame of view. Therefore, more distant route segments would become more noticeable. However, as noted above, the Final EIR/EIS already concludes that the FESSR, when installed in an area without substantial industrial development, would result in significant and unmitigable visual impacts due to the presence of the new transmission line in an undisturbed setting.

Conclusion. The visual impact analysis in the Final EIR/EIS concluded that the project would have significant and unmitigable overall adverse visual impacts. While the current SDG&E proposal would result in installation of a larger number of marker spheres than anticipated, these spheres would not be the only or the most visible component of the project. The Final EIR/EIS conclusion identifies numerous significant visual impacts (see list above), and is based on the installation of new transmission towers, new conductors, new access roads, and other associated facilities (including line markers). Marker spheres are one component of the project, and they were assumed to be present in some locations along the FESSR as shown on Figure E.1.3-10B. The severity of the visual impact in the FESSR project area was determined to be significant in the Final EIR/EIS, and the definition of marker sphere locations does not substantially increase this severity and is consistent with the conclusions of the Final EIR/EIS.

While the proposed use of marker balls as project components would make the line more noticeable, they will also improve aircraft safety in the vicinity of the transmission line, reducing the impact related to flight hazards.

1.1.3 Construction Yards

SDG&E Modification. Several modified construction yards are proposed in the PMR. Construction yards (called staging areas in the Final EIR/EIS) are described in the Final EIR/EIS for the Sunrise Powerlink Project (see EIR/EIS Section B.4.5). The Final EIR/EIS states that construction yards would be required for storing materials, construction equipment, and vehicles. It further acknowledges that the exact locations had not yet been determined, and that the staging areas would likely be sited near the center and endpoints of the proposed route of the SRPL and at several potential locations in between. It was anticipated that the exact locations would be finalized following final engineering and negotiations with landowners. Specifically, the final engineering defined in the PMR includes 19 construction yards (nearly 430 acres of temporary ground disturbance). The Final EIR/EIS included 43 construction yards along the FESSR (approximately 801 acres of temporary ground disturbance).

The PMR includes specific information on the size and location of the construction yards that are now proposed to be used for the Sunrise Powerlink Project. While the location of some construction yards

varies from the sites defined in the Final EIR/EIS, both the number of construction yards and the total acreage of construction yards have been reduced by 46 percent from the FESSR.

Section 2 includes an assessment of each yard, as compared with the facility defined in the Final EIR/EIS and explains the difference in impact for each. This discussion compares the overall acreage and number of construction years along the entire route.

Final EIR/EIS Discussion. The impacts associated with construction yards were analyzed in the Final EIR/EIS as components of the FESSR, within each of the resource areas. The following list presents the major impacts associated with construction yards and describes how they were evaluated in the Final EIR/EIS:

- **Visual impacts:** Impact VR-1 considered the short-term visibility of construction activities, equipment, and night lighting. This impact was found to be less than significant due to its relatively short duration, but mitigation was adopted regardless. Mitigation Measures V-1a (Reduce visibility of construction activities and equipment) and V-1b (Reduce construction night lighting impacts) would ensure that impacts are not significant during the construction period.
- **Biological Resources impacts:** Final EIR/EIS Section D.2.10 addresses “Construction Activities: Disturbance to Wildlife.” Numerous individual impact analyses address the loss of habitat or construction disturbance, and a large number of mitigation measures require implementation of protective and compensatory measures during construction.
- **Noise impacts:** Final EIR/EIS Section D.8 addresses noise impacts of the project, and is primarily focused on construction noise, since operational noise impacts are comparatively small.
- **Air Emissions:** Final EIR/EIS Section D.10 includes detailed analysis of Impact AQ-1 (Construction would generate dust and exhaust emissions of criteria pollutants and toxic air contaminants), concluding that these impacts would be significant and unmitigable (Class I), even with implementation of Mitigation Measures AQ-1a and 1b.

Public Comments. Commenters indicate concern about greater areas of disturbance for specific construction yards.

Evaluation. Approximately 9 of the 19 construction yards remaining in the modified project described in the PMR were proposed at the same locations as those assumed in the FESSR. Although the size and location of certain construction yards have changed from the FESSR, the impact analysis provided in the Final EIR/EIS adequately considers these impacts, and the mitigation measures developed for the FESSR are equally effective for the revised areas. Mitigation for this ground disturbance is required for the modified project. The Final EIR/EIS acknowledges that construction yards (or staging areas) were not finalized and were subject to change based on final engineering and negotiations with landowners. The modified locations validate the Final EIR/EIS and are consistent with the discussion therein. As required by EIR/EIS mitigation measures SDG&E has completed pre-construction protocol surveys for all listed or highly sensitive biological resources. See Mitigation Measures B-3a, Prepare and implement a Weed Control Plan; B-5a, Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies; B-7i, Conduct Quino checkerspot butterfly surveys, and implement appropriate avoidance/minimization/compensation strategies for examples of mitigation measures that require pre-construction surveys. Consideration of each specific construction yard is presented in *Section 2*. The specific yards are analyzed geographically under the PMR modification subunit listed in PMR Table 2-3 of the Final PMR.

Overall, the temporary disturbance associated with use of construction yard has been reduced by approximately 46 percent. This has been accomplished by elimination of several yards, and by reducing the size of other yards.

Conclusion. Although the construction yards have changed in size and location from those identified in the FESSR, this change on its own is consistent with the Final EIR/EIS and does not constitute as an increased level of environmental impact or a substantial new significant impact. The mitigation measures defined in the Final EIR/EIS apply to the revised yard locations and will ensure that impacts are not significant at each location (see *Section 2* for detail as to the differences between effects of each yard). In addition, the acreage of temporary disturbance has been reduced by approximately 46 percent.

1.1.4 Telecommunication Equipment

SDG&E Modification. Installation of microwave transmission equipment inside the lattice structure of six transmission towers along the route in addition to changes to the Tierra del sol Communication Facility, analyzed in Section 2 of the RDEIR/SDEIS as modified in the Final EIR/EIS, is discussed in Section 2.3 of the Final PMR. This equipment would establish a reliable communications system during project operation and would increase worker safety. The equipment would be used during construction and operations, as follows:

- **Construction:** The mobile telecommunications equipment at the Alpine Headquarters and Yard would be temporarily placed on flat beds (truck trailers) at the existing work areas during project construction, because communication is required for worker safety and construction communication.
- **Operation:** After towers are constructed, certain towers (Structures EP146, EP34-1, EP87-1, CP60, CP108, CP82-1) would have the communications equipment permanently installed within the tower lattice structures themselves. There would be no additional ground disturbance to install these facilities. The incremental visual impact of the telecommunications equipment (inside the lattice tower structure) would be very small because the exterior shelter of the poles would remain the same and only the interior would be modified to house the communications equipment.

These facilities are addressed in the PMR because SDG&E requires additional communication facilities to be installed along the transmission line route, and these facilities were not defined at the time of the Final EIR/EIS.¹ A project design modification does not necessarily require the preparation of supplemental environmental analysis. For example, a change in project design with no discernable differences in the level of environmental impact does not trigger NEPA supplementation requirements (*Price Road Neighborhood Association v. US Dept. of Transportation*, 113 F.3d 1505 (1997)).

Final EIR/EIS Discussion. Telecommunication facility upgrades to Tierra del Sol/White Star facility were described in Section 2 of the October 2008 Recirculated Draft EIR/Supplemental Draft EIS (RDEIR/SDEIS) (see pages 2-13 to 2-14 under “SDG&E Communication Facility” for its initial description) and analyzed under each issue area in the RDEIR/SDEIS as well. This upgrade is described on pages 2-7 and 2-8 of the RDEIR/SDEIS) and is illustrated in Figure 2 of this document.

Public Comments. Commenters suggest that the additional communication facilities would have more severe visual impacts.

¹ As noted by several commenters, the Tierra del Sol Communication Facility is located in Boulevard, not in Jacumba as mentioned in PMR Section 2.3.

Evaluation. The Tierra del Sol and White Start facility upgrades are addressed in the RDEIR/SDEIS. The remainder of the modified communications equipment included in the PMR would be enclosed within the already approved transmission towers. No new towers would be constructed to house this equipment so the context of the impact would be restricted to visual impacts at the transmission towers. The additional structural complexity added to each tower by the equipment attached to the towers would be minimally visible, and would not change the visibility of each tower. As such, the visual impact analysis of the transmission towers would remain consistent with Sections E.1.3, E.2.3, and E.4.3 of the Final EIR/EIS.

Conclusion. No new significant impacts would be created, and the temporary and minor visual effects would not result in a substantial increase over that evaluated in the Final EIR/EIS, nor would it impact the validity of the Final EIR/EIS. The additional structural complexity of the equipment would be consistent with the visual analysis of the Final EIR/EIS. The benefits of the system are that it would establish a reliable communications system and would increase worker safety during both operational and construction timeframes.

1.2 Biological Resources

The Final EIR/EIS evaluated the biological resources impacts of the proposed project and alternatives, including the approved FESSR. Impacts to biological resources resulting from the project modifications have been reviewed to consider whether they would result in significant effects not addressed in the EIR/EIS or whether significant effects previously examined would be substantially more severe than in the EIR/EIS, as required by CEQA Guidelines section 15162(a)(3). Similarly, the modifications have been reviewed to ensure they are substantially the same action as previously analyzed and that the analysis of the approved project is consistent with the proposed modifications, that the analysis is valid in light of any new information or circumstances, and that the methodology and analytical approach used in the existing EIR/EIS continues to be appropriate as required by NEPA guidance.

The biological resources impacts of each separate modification are considered in Section 2. This section addresses broader issues that apply to the entire modified project.

1.2.1 CPUC and BLM Review of Biological Data and Analysis

In order to determine whether the project modifications would result in new, significant effects to biological resources that were not disclosed in the EIR/EIS, whether significant biological effects previously examined in the EIR/EIS would be substantially more severe, and whether the proposed modifications are consistent with and/or validate the existing environmental analysis such that additional CEQA or NEPA documentation is or is not required. The CPUC and BLM reviewed the PMR and the PMR map book and verified SDG&E's calculations of impacts to sensitive vegetation types and special status species habitat or individuals for the Final Environmentally Superior Route (FESSR) and the May 2010 Modified Project using the PMR Database. The data presented in the PMR Section 3, includes the impacts of the FESSR using the data set from the FESSR, the impacts of the FESSR using the PMR data set, and the impacts of the modified project using the PMR data set. Regardless of whether the FESSR data set is used, or the PMR data set is used, the modified project would reduce impacts to sensitive vegetation communities, most special status plant species, and all special status wildlife species. Overall, the modified project would increase impacts to three special status plant species and decrease impacts to nine special status plant species. Impacts to special status plant species were assessed under Impact B-5 for direct or indirect loss of listed or sensitive plants or a direct loss of habitat for listed or sensitive plants. Impacts to special status plant species in the FESSR project area were determined to be significant in the Final EIR/EIS; however, the increase in impacts to some, but not all

sensitive plant individuals does not substantially increase the severity of this impact. Overall, the number of special status plant species and individuals impacted would decrease with the modified project; see Table 3-6 in the PMR. The Final EIR/EIS requires mitigation for significant impacts to special status plants: the applicant is required to conduct rare plant surveys and implement appropriate avoidance/minimization/mitigation strategies as well as provide restoration/compensation for affected vegetation communities. A detailed discussion regarding the data sets is provided below.

The CPUC and BLM additionally examined SDG&E's calculations of the different types of impacts listed for a number of the individual modifications, including special status plant species, Waters of the U.S., State waters, and Riparian Conservation Areas (RCAs). The CPUC and BLM verified SDG&E's acreage calculations by using GIS shapefile impacts and comparing their results with the impacts in SDG&E's PMR Database. Prior to conducting the examination of the calculations, the CPUC and BLM reviewed the PMR Database to ensure inclusion of all biology survey data to date and randomly inspected the impact polygons in the GIS shapefiles to ensure correct coding (i.e., permanent versus temporary impacts).

As stated in the Final EIR/EIS, Section 2 (General Responses to Major Comments: Adequacy of Biology Surveys), 100 percent survey data for the alternatives was not available at the time the Final EIR/EIS was published. Where survey data was collected remotely from public access points or interpreted from aerial photographs and were not verified in the field, the presence of a threatened or endangered species was assumed based on the presence of potential habitat. Section 2 further states that where species are assumed to be present and impacted, pre-construction surveys that meet USFWS protocol would be required to determine the presence or absence of species, and the mitigation required may be reduced or eliminated based on the results of these surveys. As such, the revised acreage of loss of special status plant and wildlife species as presented in the PMR, is consistent with the conclusions of the Final EIR/EIS and validates these conclusions.

Public Comments. Commenters expressed concerns that effects on a variety of biological resources would be increased or changed as a result of the modifications.

Evaluation. The Final PMR largely presents impacts for the FESSR using updates to the Final EIR/EIS Database rather than the database used to calculate the impacts presented in the Final EIR/EIS. As discussed above, information from pre-construction surveys, collected in compliance with various mitigation measures, is included in the updated database and is consistent with the requirements of the Final EIR/EIS. The updated database (referred to as the "PMR Database" in this PMR) includes the information in the Final EIR/EIS Database as well as additional survey information or data collected by SDG&E since issuance of the Final EIR/EIS. The updated information/data includes data for the arroyo toad, barefoot banded gecko, bats, coastal California gnatcatcher, golden eagle, Peninsular bighorn sheep, Quino checkerspot butterfly (QCB), Stephens' kangaroo rat, special status plant species, riparian birds, and invasive, non-native, or noxious plant species. It also includes new data gathered during a delineation of jurisdictional waters² and an analysis of Riparian Conservation Areas (RCAs).

PMR Table 3-3 (repeated below and on page 3-8 of the PMR), for example, shows the impacts to acres of sensitive vegetation communities:

- The first column of PMR Table 3-3 summarizes the impacts to vegetation communities for the FESSR using the data known at the time the Final EIR/EIS was published (referred to as "Final EIR/EIS Database").

² Available on CPUC website at

http://www.cpuc.ca.gov/Environment/info/aspensunrise/otherdocs/Revised-Updated%20Prelim%20JD%20Report_072309.pdf

- The second column of PMR Table 3-3 summarizes the impacts to vegetation communities for the FESSR using the data from the Final EIR/EIS and the additional survey information and data collected by SDG&E since the Final EIR/EIS was published (referred to as the “PMR Database”).
- The third column of PMR Table 3-3 summarizes the impacts to vegetation communities for the May 2010 Modified Project using the PMR Database.

PMR Table 3-4, on the other hand, only displays impacts from the FESSR using the PMR Database (noted in the title to PMR Table 3-4). Additionally, each PMR unit discussion in Section 4 of the PMR only addresses the FESSR with impacts analyzed using the PMR Database.

The CPUC and BLM reviewed all comments regarding biological resources submitted on the PMR. Comments addressed the impacts to occupied habitat for a number of species including QCB, arroyo toad, coastal California gnatcatcher, least Bell’s vireo, and Stephens’ kangaroo rat. As stated above, in some instances where surveys results were not available, the Final EIR/EIS assumed presence based on potential habitat; however, now that surveys of the FESSR have been completed in compliance with mitigation measures, additional data is now available to determine whether potential habitat is also suitable or occupied habitat. Other examples of CPUC/BLM data review include the following:

- The Final EIR/EIS assumed permanent impacts to 19.20 acres of 2002 critical habitat for the Quino checkerspot butterfly (QCB) and temporary impacts to 55.72 acres of 2002 critical habitat for the QCB and required appropriate mitigation. Since the completion of the Final EIR/EIS, additional surveys have been performed in compliance with mitigation, and 2009 critical habitat for QCB has been designated. Analysis now shows that the modified project would result in permanent impacts to a total of 19.61 acres of QCB habitat (4.45 acres of 2009 critical habitat and 15.16 acres of occupied habitat, which is former 2002 critical habitat). Temporary impacts would occur to 19.08 acres (1.59 acres of 2009 critical habitat and 17.49 acres of occupied habitat, which is former 2002 critical habitat). Mitigation adopted from the Final EIS/EIR required SDG&E to reduce impacts both to sensitive habitats and sensitive wildlife species; reduction in impacts to QCB habitat (occupied habitat, as well as 2002 and 2009 designated critical habitat) is consistent with the Final EIR/EIS.

Similarly, the Final EIR/EIS assumed presence (in the absence of surveys) for other sensitive species. For example, the Final EIR/EIS assumed presence of the barefoot banded gecko from approximately MP I8-23 through MP 39 and from approximately MP BCD-0 through MP BCD-8 for the FESSR where appropriate habitat occurs and required appropriate mitigation. The modified project now includes references to “occupied” habitat for the species. “Occupied” habitat was determined by: 1) assuming all suitable habitat as identified in the Final EIR/EIS (i.e., from MP 23 through 39) is occupied by the gecko and 2) with additional data from area where the gecko was found within portions of the Final EIR/EIS suitable habitat. This data supports a determination of presence within a portion of the suitable habitat using data not available during the Final EIR/EIS. However, it does not establish absence throughout the rest of the suitable habitat. SDG&E is conducting surveys for the gecko (May to July 2010; page 3-21 of the PMR), which could potentially support a determination of absence in other areas if the California Department of Fish and Game (CDFG) accepts the survey methods and results. SDG&E’s survey data indicates that no new significant effects would occur and that the modifications would not result in substantially more severe effects previously examined as discussed below and that the modified project would be consistent with the conclusions of the Final EIR/EIS.

- In PMR Table 3-7 (below, and on page 3-15 of the PMR), the CPUC and BLM noticed that acreages for FESSR impacts to FTHL Management Areas and FTHL Habitat Outside of Management Areas are different when analyzed using the Final EIR/EIS Database and the PMR Database. The CPUC and BLM contacted SDG&E on May 28, 2010 to discuss the difference. Based on that discussion and the review of the PMR Database, it is evident that SDG&E used a more generalized shapefile that included a larger area of this habitat to calculate the impacts than was used by the CPUC and BLM (the CPUC and BLM used a more refined shapefile of this habitat that was provided by the Bureau of Land Management [BLM]). Using either the Final EIR/EIS Database or the PMR Database to calculate impacts, the May 2010 Modified Project would reduce impacts to the habitat as compared to the FESSR.
- CPUC and BLM review also noticed that acreages for FESSR impacts to Peninsular bighorn sheep critical habitat are different when analyzed using the Final EIR/EIS Database and the PMR database (see PMR Table 3-7). The CPUC and BLM contacted SDG&E on May 28, 2010 to discuss the difference. Based on that discussion and the review of the PMR Database, it is evident that SDG&E used the critical habitat that was considered in the Biological Opinion (i.e., a 2006 critical habitat shapefile from U.S. Fish and Wildlife Service [USFWS] that contained updates to the 2001 designated critical habitat.) The Final EIR/EIS Database used the slightly larger 2001 critical habitat shapefile, which was obtained from the USFWS. Whether using the Final EIR/EIS Database or the PMR Database to calculate the impacts, the May 2010 Modified Project would reduce impacts to Peninsular bighorn sheep critical habitat as compared to the FESSR.

The CPUC and BLM verified the impact assessments of vegetation, plant and animal species, Waters of the U.S., State waters, and RCAs for the modifications to the FESSR in the PMR (PMR Table 2) and verified the impact numbers presented therein. The CPUC and BLM also reviewed SDG&E’s explanations regarding decreases or increases in impacts for each modification and conclusions made for the May 2010 Modified Project in the PMR. The modification would result in impacts to sensitive plant species and wildlife consistent with the Final EIR/EIS and validates the conclusions of the Final EIR/EIS. Discussions of specific subunit modifications (e.g., where there are increases in impacts, or where the CPUC and BLM have additional comments) are included under the affected subunit modification in *Section 2*.

1.2.2 Impacts to Biological Resources

After reviewing and verifying the biological resources data provided in the PMR, the CPUC and BLM assessed the impacts of the PMR as a whole and compared these to the FESSR. SDG&E’s calculations of permanent and temporary impacts to sensitive vegetation types (PMR Table 3-3, repeated below) and special status species habitat or individuals (PMR Table 3-7, repeated below) for the Final Environmentally Superior Route (FESSR) and the May 2010 Modified Project using the PMR Database are summarized below.

**PMR Table 3-3. FESSR and Modified Project Impacts to Sensitive Vegetation Communities
based on EIR/EIS and PMR Databases**

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Information Source	EIR/EIS Database	PMR Database	PMR Database
SENSITIVE VEGETATION COMMUNITIES	Acres	Acres	Acres
Permanent Impacts			

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Information Source	EIR/EIS Database	PMR Database	PMR Database
Desert Scrub and Dune Habitats	93.08	91.88	36.37
Coastal and Montane Scrub Habitats	54.52	53.56	27.47
Grasslands and Meadows	14.37	13.74	4.15
Chaparrals	320.17	294.36	181.19
Woodlands and Forests	6.54	17.89	4.24
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)	0.13	3.17	1.10
Riparian Scrubs	0.57	0.38	0.00
Riparian Forests and Woodlands	0.58	0.88	0.25
Total Permanent Impacts to Sensitive Communities	489.96	475.86	254.77
Temporary Impacts			
Desert Scrub and Dune Habitats	269.47	282.13	142.27
Coastal and Montane Scrub Habitats	118.39	114.56	66.94
Grasslands and Meadows	172.89	161.49	48.40
Chaparrals	271.20	321.44	223.96
Woodlands and Forests	12.78	30.57	3.93
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)	3.03	10.73	2.37
Riparian Scrubs	1.08	0.69	0.00
Riparian Forests and Woodlands	<0.01	2.96	0.10
Total Temporary Impacts to Sensitive Communities	848.85	924.57	487.97
TOTAL IMPACTS TO SENSITIVE VEGETATION COMMUNITIES	1338.81	1400.43	742.74

As shown in PMR Table 3-3 impacts to nearly all sensitive vegetation communities would decrease with the SGD&E modifications and would be consistent with the Final EIR/EIS conclusions. Permanent impacts of the May 2010 Modified Project to herbaceous wetlands, freshwater, and streams would increase by 0.97 acres compared with the FESSR using the EIR/EIS database, but would decrease by 2.07 acres compared with the PMR database. Specific acreages of impacts to jurisdictional waters were not calculated for the FESSR in the Final EIR/EIS because a jurisdictional delineation had not yet been conducted. Analysis of impacts to jurisdictional waters used vegetation communities that generally occur in jurisdictional waters as a proxy for jurisdictional areas. As explained in the Final EIR/EIS, impacts to jurisdictional areas cannot be clearly defined until a final route, including project-specific features and final engineering, is selected. Consistent with the process described in the Final EIR/EIS, a formal jurisdictional delineation has since been conducted to determine those impacts so that SDG&E can apply for permits from the U.S. Army Corps of Engineers (“ACOE”), Regional Water Quality Control Board (RWQCB), and CDFG. Information from the completed jurisdictional delineation shows that both permanent and temporary impacts to jurisdictional waters would decrease with the modified project compared with the FESSR and validates the conclusions of the Final EIR/EIS. Temporary impacts to riparian forests and woodlands would increase by less than 0.09 acres compared with the FESSR using the EIR/EIS database, but would decrease by 2.86 acres compared with the PMR database. Area of impacts of the May 2010 Modified Project to all other sensitive vegetation communities would decrease compared with the FESSR, regardless of which database is used for comparison. Overall, permanent and

temporary impacts to sensitive vegetation communities would decrease by approximately 48 percent (45 percent with the PMR database) and 44 percent (47 percent with the PMR database), respectively.

**PMR Table 3-7. Estimated Impacts of the FESSR and Modified Project to Special Status Species
Based on the EIR/EIS and PMR databases**

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
SPECIAL STATUS SPECIES ¹	(acres or number)	(acres or number)	(acres or number)
QUINO CHECKERSPOT BUTTERFLY			
<i>USFWS Critical Habitat (2002 or 2009)²</i>			
Permanent Impacts	19.20	11.46	4.45
Temporary Impacts	55.72	16.93	1.59
<i>USFWS Occupied Habitat (USFWS Data)³</i>			
Permanent Impacts	--	36.16	15.16
Temporary Impacts	--	84.76	17.49
ARROYO TOAD			
<i>USFWS Proposed Critical Habitat⁴</i>			
Permanent Impacts	--	7.13	2.46
Temporary Impacts	--	100.67	44.23
<i>USFS Suitable Habitat [USFS Habitat Model]</i>			
Permanent Impacts	32.45	33.09	11.92
Temporary Impacts	150.69	154.97	63.00
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]</i>			
Permanent Impacts	--	3.83	3.49
Temporary Impacts	--	20.53	0.01
BAREFOOT BANDED GECKO (SUITABLE HABITAT)			
<i>Permanent Impacts</i>	--	20.63	10.84
<i>Temporary Impacts</i>	--	17.16	4.53
FLAT-TAILED HORNED LIZARD			
<i>Permanent Impacts</i>			
Management Areas	22.62	22.26	9.54
Habitat Outside of Management Areas	52.95	71.16	26.35
Total Permanent Impacts	75.57	93.42	35.89
<i>Temporary Impacts</i>			
Management Areas	91.31	103.25	36.87
Habitat Outside of Management Areas	141.53	170.67	94.88
Total Temporary Impacts	232.84	273.92	131.75
COASTAL CALIFORNIA GNATCATCHER			
Number of Pairs Affected	--	--	2
Number of Unpaired Individuals Affected	--	--	1
<i>USFWS Critical Habitat</i>			
Permanent Impacts	2.22	10.06	3.88
Temporary Impacts	32.97	17.84	21.58
<i>USFWS Occupied Habitat (USFWS Data)</i>			
Permanent Impacts	0 ⁵	1.46	0.16
Temporary Impacts	0 ⁵	1.83	8.11
<i>USFS Suitable Habitat [USFS Habitat Model]</i>			

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
	(acres or number)	(acres or number)	(acres or number)
SPECIAL STATUS SPECIES¹			
Permanent Impacts	25.52	25.03	11.97
Temporary Impacts	52.69	48.50	15.67
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]</i>			
Permanent Impacts	--	2.65	1.12
Temporary Impacts	--	7.07	0.60
GOLDEN EAGLE⁶			
Nest Sites Potentially Affected	4	--	9 ⁵
LEAST BELL'S VIREO⁷			
<i>USFWS Occupied Habitat [USFWS Data]</i>			
Permanent Impacts	0.94	0.89	0.00
Temporary Impacts	0.00	0.32	0.00
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]⁷</i>			
Permanent Impacts	--	1.32	0.19
Temporary Impacts	--	0.00	0.00
SOUTHWESTERN WILLOW FLYCATCHER⁷			
<i>USFS Suitable Habitat in CNF (USFS Modeled Habitat)</i>			
Permanent Impacts	--	5,14	3,98
Temporary Impacts	--	14.39	0.74
PENINSULAR BIGHORN SHEEP			
<i>2001 Designated Critical Habitat/Occupied Habitat⁸</i>			
Permanent Impacts	60.42	30.41	10.36
Temporary Impacts	111.81	34.64	20.24
<i>2009 Designated Critical Habitat</i>			
Permanent Impacts	N/A	16.04	5.41
Temporary Impacts	N/A	17.16	1.41
STEPHENS' KANGAROO RAT⁷			
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]⁷</i>			
Permanent Impacts	0	0.71	0.18
Temporary Impacts	0	0.03	0.00

Notes: See SDG&E PMR Table 3-7 for detailed notes.

Conclusion. None of the modifications to the FESSR in the Final PMR would create new significant impacts to biological resources. Most project modifications would reduce or would not change impacts to biological resources and remain consistent with the conclusions of the Final EIR/EIS. The details of each modification and the changes in effect to each type of habitat are detailed in Section 2 of the CPUC and BLM Memorandum. Where the project modifications would increase impacts to biological resources (e.g., to sensitive vegetation, special status plant species, Waters of the U.S., state waters, and/or RCAs), the increases in impacts would be comparatively small and would not be substantial increases in the severity of impacts previously discussed in the Final EIR/EIS.

While some of the modifications result in small increases in impacts to biological resources, they often result in larger reductions in impacts to other resource areas. As such, the modifications would not present new significant impacts, a substantial increase in the severity of existing impacts, and are found consistent with the existing environmental analysis such that no additional CEQA/NEPA analysis is required. Each PMR modification (including the addition of infrared tower lighting) would not change

the significance of the impacts listed in the Final EIR/EIS (i.e., Class I impacts would remain as Class I impacts, Class II impacts would remain as Class II impacts, etc.), and no new mitigation measures would be required.

1.2.3 Impacts to Golden and Bald Eagles

SDG&E Modification. PMR Summary Tables S-1 and 3-7 identify 9 golden eagle nests potentially affected by modified project, as opposed to the Final EIR/EIS which identified 4 nests. A number of commenters highlighted this apparent increase and requested further information and analysis regarding the significance of this impact. The greater number of eagle nests identified during the surveys is based on the survey methodology used by the eagle biologist; *Interim Golden Eagle Inventory and Monitoring Protocols, and Other Recommendations* recently published by the USFWS. For these surveys, a four mile radius was used to be consistent with the new survey methodology. The purpose of the protocols is to provide information on the baseline circumstances for evaluation of permit applications and foundation for permit conditions, they do not provide a specific distance at which human activities would significantly affect a golden eagle nesting site. Therefore, as explained in detail below, although the 2010 inventory shows that there are nine nest sites within four miles of project activities, only four nest sites would be significantly affected because they are within 4,000 feet of the project and project activities including project construction/maintenance. Thus, the number of nest sites significantly affected is unchanged from the EIR/EIS.

Final EIR/EIS Discussion. The biology section of the Final EIR/EIS analyzed the project's compliance with the Bald and Golden Eagle Protection Act (referred to as the Bald Eagle Protection Act in Sections D and E of the Final EIR/EIS). The Bald and Golden Eagle Protection Act (September 2009) rule published by USFWS was not in place at the time the Final EIR/EIS was published and was not analyzed as part of the Final EIR/EIS. The regulation set forth in 50 CFR 22.26 (published in the September 2009 rule) provides for issuance of permits to take bald eagles and golden eagles where the taking is associated with, but not the purpose of, the activity and cannot practicably be avoided. Most take authorized under this section will be in the form of disturbance, and not direct take of nests. The regulation includes a provision for a programmatic permit that allows for potential take resulting from ongoing activities associated with operation and enduring site features (e.g., collision impacts). Prior to this rule, there was no provision in the Act for projects like utilities and airports to take eagles.

Potential project impacts to golden eagles were analyzed in Impact B-7H (direct or indirect loss of golden eagles or direct loss of habitat) of the Final EIR/EIS. Impacts to golden eagles (Impact B-7H) were considered significant according to Significance Criteria 1.e. (substantial adverse effect on the breeding success of the golden eagle), 1.f. (project would directly or indirectly cause the mortality of a special status species), 1.g (project would result in the abandonment of migratory bird nests and/or eggs), and 1.h (project would take golden eagles, eagle eggs, or any part of an eagle). (Subsection D.2.4.1, Significance Criteria.) Impacts to golden eagles were considered significant and unmitigable (Class I) because construction activities within 4,000 feet of golden eagle nest sites could cause abandonment of a nest, subsequent reproductive failure, and continuing decline of the species. Four golden eagle nest sites occur within 4,000 feet of the FESSR and the EIR/EIS concluded that each of the 4 nest sites would be adversely affected by the project.

Potential project impacts to bald eagles were analyzed in Impact B-7I (direct or indirect loss of bald eagles or direct loss of habitat) of the FEIR/FEIS. The Final EIR/EIS acknowledged the following in relation to bald eagles: the single breeding pair in San Diego County (at Lake Henshaw); the occasional winter sightings near the FESSR (Morena Reservoir, Corte Madera Lake, and Barrett Reservoir); and the USFS's modeled habitat for the species. The Final EIR/EIS stated No Impact to bald eagles as a result of the

project (except for collision risk). The statement of No Impact was based on the Lake Henshaw nest site being more than 4,000 feet from the FESSR and based on a low potential for bald eagles to forage in the areas identified by USFS as modeled habitat for the species.

Impacts to listed and sensitive bird species, including golden eagles and bald eagles, as a result of collision with project features were considered significant and unmitigable (Class I). Impacts were considered significant according to Significance Criteria 1.a (project would impact one or more individuals of a species that is federal or State listed as endangered or threatened), 1.f (project would directly or indirectly cause the mortality of a special status species), and 1.g (project would result in the abandonment of migratory bird nests and/or eggs).

Evaluation. The project's Biological Opinion, dated January 2009, did not address impacts to golden eagles or bald eagles because they are not federally listed. The Final EIR/EIS analyzed the project's potential impacts on golden eagles and bald eagles (Impacts B-7H, B-7I, B-10, and B-12). The new 2009 rule does not change the conclusions in the Final EIR/EIS, but rather provides a permit process that the project may need to follow if disturbance impacts to eagles cannot be avoided. However, impacts of the proposed modifications remain consistent with the analysis and conclusions presented in the Final EIR/EIS.

In February 2010 the U.S. Fish and Wildlife Service published the *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* which recommends assessing a 4 to 10 miles area slated for development or authorizations for increased human activity. The protocols further state that Golden Eagles, visibly display behavior that signifies disturbance when they are stressed by anthropogenic activities; whether it is a lone hiker walking 1000 meters or more from a nest, or extended construction or recreation activities 2000 – 5000 meters from a territory (pg. 9). However, the protocols do not set a distance at which anthropogenic activities would no longer impact golden eagle nest sites.

SDG&E is currently conducting a golden eagle nest area study following the interim protocols, and preliminary results of Phase 1 of the surveys indicate that there are 9 nests (active territories) within a 4-mile radius of the modified project's activity areas in compliance with the interim protocols. The purpose of the Phase I survey is to record and report occupancy of resident golden eagle activities, nests, and territories. This survey protocol is intended to standardize procedures to inventory and monitor Golden Eagles within the direct and indirect impact areas of planned or ongoing projects where disturbance or lethal take from otherwise permitted human activities is possible.

SDG&E has, on its own, initiated this 2010 eagle survey with Mr. Bittner³. According to SDG&E, Mr. Bittner indicated to SDG&E that he would conduct the survey but only in accordance with the interim USFWS protocols and their minimum distance of four miles, which has resulted in the identification of five more golden eagle nest sites reported in the Final PMR than reported in the Final EIR/EIS (i.e., a total of nine nest sites reported in the Final PMR compared with four in the Final EIR/EIS). The significance criteria defined in the Final EIR/EIS, however, considered human activity (including construction and maintenance) within 4,000 feet (or approximately 0.75 mile) of nest sites to have the potential to significantly affect nesting eagles (nest abandonment, subsequent reproductive failure and continuing decline of the species). Four-thousand feet was, at the time the EIR/EIS was published, the

³ J. David Bittner is the executive director of the Wildlife Research Institute, Inc; he is the project leader of the longest running Golden Eagle research project in the Western Hemisphere (1982 to the present) and his research projects include population study of golden eagles in southern California, study of golden eagles fall and winter migratory patterns, determining golden eagle territory size and use in San Diego County, and population study of nesting golden eagles in Anza Borrego Desert..

accepted disturbance avoidance buffer for golden eagle nests and established in consultation with Mr. Bittner. The USFWS conducted more than one review of the EIR/EIS, and did not comment on the 4,000-foot avoidance buffer. Four thousand feet is also used to evaluate impacts to the golden eagle nest sites for coverage under the Multiple Species Conservation Program (MSCP) for most of San Diego County, see map at <http://www.dfg.ca.gov/habcon/nccp/status/SanDiegoMSCP/>,) including as recently as 2008 in the Draft Conservation Analysis for the North County MSCP. The North County MSCP area, specifically, encompasses 294,849 acres in and around the unincorporated communities of Bonsall, De Luz, Fallbrook, Harmony Grove, Rancho Santa Fe, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center. Therefore, 4,000 feet is still considered an adequate distance for evaluating the impacts to golden eagle nesting for the FESSR and the modified project. The additional survey data will benefit the USFWS as the protocol was designed to standardize data collection for potential local and regional analysis of long-term occupancy, productivity and eagle use trends. Impacts to golden eagle nesting resulting from the modified project are consistent with the analysis presented in the Final EIR/EIS.

The golden eagle discussion on Pages 3-23 and 3-24 of the Final PMR explains that project activities will be subject to mitigation measures that are consistent with and more conservative than existing USFWS recommendations for avoiding take of golden eagles, which are found in the Utah Field Office Guidelines for Raptor Protection from Human and Land Disturbance (2002). While not technically applicable to Sunrise, the CPUC and BLM are aware that the Utah Guidelines are being considered for use by the USFWS for another project within the Sunrise project area, so it is reasonable to expect that the USFWS would use these guidelines when considering impacts to golden eagles for Sunrise, as well, if it was required. The CPUC and BLM have independently reviewed the golden eagle data and analysis in the PMR. The 2002 Field Office Guidelines identify a spatial buffer of 0.5 mile (2,640 feet) during the breeding season and allow for a smaller spatial buffer (i.e., 0.25 mile or 1,320 feet) for power line and road construction/maintenance under the following conditions:

- For less than 1 hour of activity in a 24-hour period during the post-brooding nestling period or
- For periods of no more than 1 hour of activity, spaced at least 2 hours apart, and only during daylight hours during the post fledging dependency period.

SDG&E's inclusion in its PMR report of the results of the eagle surveys outside of the 4,000-foot avoidance buffer in the Final PMR has resulted in confusion for some commenters as to whether there are new, or increased impacts to eagle nests and what is required mitigation for the modified project. While the 2010 inventory discloses that there are nine nest sites within four miles of project activities, no new nest sites were identified within 4,000 feet of project activities that would be potentially affected by project construction/maintenance. Analysis in the Final EIR/EIS determined that impacts to golden eagle nests would be Class I for nests within 4,000 feet of project activities and Class II for golden eagle nests within the existing transmission corridor. None of the nests identified for the modified project in SDG&E's 2010 surveys were within an existing transmission corridor. As discussed above, the CPUC and BLM have determined that the 4,000 foot buffer distance on which this determination is based continues to be appropriate. (Mitigation Measure B-7h in the Final EIR/EIS places restrictions on construction/maintenance activities within 4,000 feet of eagle nests during the breeding season.) Thus, the CPUC and BLM have determined that number of nest sites that would be affected by the modified project described in this PMR is four (4) and not "9"⁴ as reported in PMR Table 3-7, consistent with the Final EIR/EIS. new (i.e., additional) 2010 data does not change the conclusion of the Final EIR/EIS (i.e., impacts to four golden eagle nest sites), and there are still only four eagle nest sites within 4,000 feet of the modified project that would be affected.

⁴ Note: footnote 5 by the number 9 regarding nest sites potentially affected is an error and should be footnote 6.

Conclusion. The number of eagle nests around the FESSR transmission line has not changed since publication of the Final EIR/EIS. Eagle nests are not expected to be disturbed by construction activities occurring more than 4,000 feet away. Therefore, there would be no change in the impacts to golden eagles from the time the Final EIR/EIS was published and the modified project would be consistent with the conclusions of the Final EIR/EIS. For the reasons discussed above, the disclosure of nest sites between 4,000 feet and four miles from the project route, as a result of the 2010 golden eagle survey results, is not a new significant impact that would require additional CEQA/NEPA analysis, and is not a substantial increase in the severity of impacts but may be used by the USFWS for data collection for potential local and regional analysis of long-term occupancy, productivity and eagle use trends.

1.3 Water Supply

SDG&E Proposal. In the Geosyntec “Water Resources Availability Study of Non-Groundwater Sources for the project modifications” (Water Study, available on the CPUC website)⁵, SDG&E defines the sources of water to be used for project construction. The surface water sources identified are consistent with the types of supplies assumed in the Final EIR/EIS.

Public Comments. Commenters on the PMR expressed concerns regarding the water providers identified in the PMR and the amount of reclaimed water required for the project, and requested confirmation that no groundwater would be used for construction of the project modifications.

Final EIR/EIS Discussion. The Final EIR/EIS addressed potential water suppliers for each of the alternatives, and Mitigation Measure S-3b requires SDG&E to obtain reclaimed water where feasible. The Final EIR/EIS in its analysis of the FESSR assumed that no groundwater would be used for construction activities, consistent the information that SDG&E presented for the proposed project. As defined in Final EIR/EIS Section E.1.14.2, “water would be obtained from IID in Imperial County and SDCWA in San Diego County ... the route would pass by Padre Dam Reservoir [MP I8-79], El Capitan Reservoir and associated dam facilities [MP I8-82], and San Vicente Reservoir and water could also be obtained from these reservoirs.”

The Final EIR/EIS listed potential water suppliers for each of the alternatives in Sections E.1.14 (I-8 Alternative, Socioeconomics), E.2.14 (BCD Alternative, Socioeconomics), and E.4.14 (Modified Route D Alternative, Socioeconomics). The water suppliers identified were preliminary and comparable with the providers identified in the Water Study.

Based on the review of the PMR and the Geosyntec Water Study, the use of reclaimed or surface water is available for the project modifications, and use of the reclaimed or surface water would not constitute a substantial increased level of an existing environmental impact or new significant impacts as described below. Groundwater will not be used during the construction of the project.

Evaluation. The average daily demand for water during the construction period of approximately 18 to 24 months is 300,000 gallons per day. The CPUC and BLM have reviewed SDG&E’s Water Study and concur that five water providers could each provide more than this amount per day. No single source would be utilized for the entire project, reducing individual source-specific water demands. SDG&E has stated that it has initiated the application process for obtaining reclaimed water from the City of San Diego and the Padre Municipal Water District for use in San Diego County. SDG&E’s current plan for water use in Imperial County is Imperial Irrigation District canal water. Groundwater will not be used during the construction of the project.

⁵ See Water Resources Availability Study, available on the CPUC’s website at <http://www.cpuc.ca.gov/Environment/info/aspen/sunrise/toc-pmr.htm>.

The use of recycled water would require transport of this water to construction sites. This has the potential to increase impacts to air quality, traffic, and noise. Impacts to air quality from construction emissions, including from the transport of water, were reviewed as a whole, in Section 1.6, Air Emissions and Air Quality Assessment below. This section concludes that PMR emissions would be reduced substantially when compared to the results analyzed in the Final EIR/EIS. Construction-phase activities and emissions under the PMR would be limited in accordance with the AQMPC (June 9, 2009) and the fuel use cap and other activity caps in the CEMP (January 21, 2010).

The KOA Corporation prepared a Traffic Impact Study dated April 23, 2010 that was provided to Caltrans for approval as required under Mitigation Measure T-9a. This study considered the construction worker commuter trips, equipment deliveries, material hauling, and reclaimed water deliveries from the “worst case scenario” source location (see Appendix B to Traffic Impact Study). The vehicular trips predicted by the project traffic engineer incorporate the “worst case scenario” for reclaimed water deliveries, and take into account all the project modifications defined in the PMR.

The Traffic Study identifies six locations with potential to create traffic impacts and recommends mitigation to ensure that impacts are not significant. Mitigation includes additional traffic control plans for approval by local agencies prior to commencing construction activities, employee shuttling, and the restriction of peak-time deliveries. The Final EIR/EIS identified a series of impacts to traffic and circulation. All impacts to traffic and circulation were found to be either potentially significant and mitigable (Class II) or adverse, but less than significant (Class III); four mitigation measures are required for construction impacts. The CPUC and BLM reviewed Traffic Impact Study, including the recommended mitigation and agree with the conclusions that impacts remain less than significant. The impacts identified in the Final EIR/EIS remain accurate. The project modifications would not result in increased levels of environmental impact or any new significant impact.

Conclusion. Based on the review of the PMR and the Water Resources Availability Study of Non-Groundwater Sources, the use of reclaimed or surface water is available for the project modifications. The impacts associated with transport of reclaimed and surface water were fully described in the Final EIR/EIS which remain valid and the information provided by SDG&E is consistent with the Final EIR/EIS and does not constitute as an increased level of environmental impact or new significant impacts.

1.4 Helicopter Construction

SDG&E Modification. Helicopter construction has been proposed for approximately 230 structures, which represents an increase in helicopter construction than what was assumed in the EIR/EIS for the FESSR. The use of helicopters for construction was evaluated in the Final EIR/EIS as it was recommended as a mitigation measure to reduce long-term visibility of land scars. The use of helicopters for construction was assumed for the FESSR in the Final EIR/EIS, although no details were provided regarding the numbers of helicopters or the precise locations where helicopter construction would be used, as the engineering of the route had not been finalized. A project design modification does not necessarily require the preparation of a supplemental EIS. (*Price Road Neighborhood Association v. US Dept. of Transportation*, 113 F.3d 1505 (1997))

Final EIR/EIS Discussion. Final EIR/EIS Section B.4.4.2 describes how and why helicopters would be used for the construction of the proposed project. The alternatives analysis assumes construction methods similar to those described for the proposed project in the environmental analysis. Furthermore, Mitigation Measure V-2d (Construction by helicopter) was recommended for portions of the FESSR specifically to reduce impacts associated with grading and vegetation clearing (resulting in long term land-scarring).

The Project Description included in the Final EIR/EIS, identified numerous situations in which helicopters would be used for construction. Helicopters would be used in areas with steep terrain, or where access road construction would not be feasible. As a result, impact analysis throughout the EIR/EIS considered the use of helicopters as one of the construction vehicles.

Helicopter construction is associated with certain types of environmental impacts not present with conventional construction, as identified in the Final EIR/EIS and detailed below. It also provides benefits not present with conventional construction. The Final EIR/EIS includes consideration of helicopter construction in the following analyses:

- **Wildlife species** could be affected by helicopter noise. Helicopter construction was analyzed in Final EIR/EIS Section E.1.2, Biological Resources, which identified significant impacts (Class I, significant and unmitigable) to Peninsular Bighorn Sheep, partly because of the use of helicopters during construction. Impact B-7 (Construction activities would result in direct or indirect loss of listed or sensitive wildlife or a direct loss of habitat for listed or sensitive wildlife) is found to be significant (Class I) for bighorn sheep. For this reason, Mitigation Measure B-7c (Minimize impacts to Peninsular bighorn sheep, see below) is required. This measure applies to the FESSR; it provides compensation for loss of critical habitat and incorporates restrictions regarding the use of helicopters for construction to minimize impacts to Peninsular Bighorn Sheep along the FESSR. These restrictions apply only within PBS critical habitat.

Mitigation Measure B-7c: Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat. With regard to timing of activities, construction and maintenance activities (including the use of helicopters) in bighorn sheep critical habitat shall be limited to outside the lambing season and the period of greatest water need, or a minimum ceiling of 1,500 feet for helicopter flights shall be maintained. The lambing season is February January 1 through August June 30. The period of greatest water need is May through September. Construction and maintenance activities in PBS critical habitat may occur during the lambing season and/or period of greatest water need if prior approval is obtained from the Wildlife Agencies.

- **Noise impacts** associated with helicopters were described in Final EIR/EIS Section D.8 under the overview of construction impacts, and incorporated by reference for the alternatives. Section E.1.8 describes noise impacts for the Interstate 8 Alternative (a large segment of the FESSR). The bulk of the noise analysis is in Section D.8, which discusses helicopters on page D.8-16, stating that “Helicopters would also be needed to transport construction materials and to string the conductors for the overhead line.” Similarly, on page D.8-17, there is additional discussion: “Helicopters would be used in areas where access is limited (e.g., no suitable access road, limited pad area to facilitate onsite structure assembly area) or there are environmental constraints to accessing the project area with standard construction vehicles and equipment. Heavy-duty and light-duty helicopters would be needed ... Helicopters would generate noise levels of 89 dBA to 99 dBA at 50 feet.” Mitigation Measure N-1a (Implement Best Management Practices for construction noise) is required, but the impact remains significant because the substantial noise increase from construction, including the use of helicopters, would be significant and could not be reduced to less than significant levels, even with implementation of mitigation.
- **Air emissions** from helicopters were evaluated in the Final EIR/EIS, as shown in Appendix 10. In the Appendix 10 emissions calculations, nearly every page accounts for emissions from both small and heavy lift helicopters. The revisions to air emissions due to changes in construction

methods are addressed in Section 1.6 of this Section 1. While helicopter use has increased, other changes in construction methods have resulted in a substantial reduction in air emissions.

Public Comments. Commenters stated concerns that noise and air emissions from increased use of helicopters would exceed levels analyzed in the Final EIR/EIS, and that bighorn sheep may be disturbed more than previously considered.

Evaluation. The Final EIR/EIS evaluated use of helicopters (both large and small), and defined significant and unmitigable impacts related to noise and wildlife. As discussed above, Mitigation Measure B-7c restricts the use of helicopters to minimize impacts to peninsular bighorn sheep. Just as the EIR/EIS concluded that noise impacts from construction, including the use of helicopters, would be significant even with implementation of mitigation, noise impacts from the helicopter usage proposed in the PMR would be significant and unavoidable. The significance threshold for noise was an increase in day-night environmental noise levels of more than 5 dBA, see Section D.8.4.1 (Significance Criteria) of the Final EIR/EIS. The Final EIR/EIS did not differentiate between the noise levels above a 5 dBA increase, because any increase of more than 5 dBA was considered a substantial increase and a significant impact. While an increased use of helicopters would result in an increase in noise, based on the significance threshold this would not be substantially more severe than the impact analyzed in the Final EIR/EIS. As stated in EIR/EIS Section D.8.4.3, maximum instantaneous construction noise levels would range from 80 to 90 dBA at 50 feet from any work site. Helicopters, estimated at 95 dBA (in flight at 200 feet) would be within this range of construction noise and would not exceed the loudest construction noise, estimated at 98 dBA from jack hammers and rock drills. The noise would be similar in nature to that analyzed in the EIR/EIS; however, it would be shorter in duration because of the use of helicopters to aid in construction. The revisions to air emissions due to changes in construction methods are addressed in Section 1.6 of this Section 1. While helicopter use has increased, other changes in construction methods have resulted in a substantial reduction in air emissions.

Several significant benefits would result from the increased use of helicopter construction:

- Helicopter construction is one of the main contributors to the decrease in temporary ground disturbance impacts that would occur under the modified project described in the PMR. This is because the helicopter construction would use tower staging access pads rather than access roads during construction. Because the tower staging access pads require fewer acres than the access roads they reduce the amount of ground disturbance required for construction. Ground disturbance would be reduced from over 800 acres identified for the FESSR to less than 500 acres for the modified project. Permanent ground disturbance impacts would be reduced from just under 500 acres (as defined for the FESSR) to about 250 acres for the modified project, respectively. Additionally, while use of helicopters in construction increases the maximum intermittent noise levels, as addressed in the Final EIR/EIS, it also shortens the construction period.
- Reduced need for new access roads also reduces the requirement for water to control dust during construction.

Conclusion. The use of helicopter construction was assumed and analyzed in the Final EIR/EIS which remains valid. Increased helicopter use would not result in a substantial increase of an identified environmental impact or the creation of new significant impacts and is consistent with Mitigation Measure V-2d (Construction by helicopter) recommended for portions of the FESSR. The increased use of helicopters would decrease the level of some of the environmental impacts analyzed in the Final EIR/EIS (particularly as related to ground disturbance).

1.5 Fire Risk

SDG&E Modification. The project changes relevant to fire and fuels management include transmission line re-routes outside of the approved ROW. As described below, the Fire and Fuels Management analysis in the EIR/EIS relied on wildfire behavior modeling, which used the transmission ROW as the point of ignition of potential wildfires. Therefore, changes to the alignment of the approved ROW have the potential to change the wildfire modeling results, as discussed below.

Final EIR/EIS Discussion.

The approach and conclusions of the Final EIR/EIS related to fire and fuels management are described here.

Project Firesheds in the EIR/EIS. The project study area, or area of potential effect, for the Fire and Fuels Management analysis was defined as the project “firesheds.” Firesheds are regional landscapes that are delineated based on fire history, vegetation, topography, and potential wildfire behavior. Firesheds were defined in the EIR/EIS first and foremost by the location of the overhead portions of the proposed and alternative transmission alignments. Underground transmission lines do not have the capacity to result in long-term operational wildfire ignitions, and project fireshed boundaries did not attempt to encompass underground portions of the project.

The fireshed boundaries were delimited by the location of the overhead portions of the proposed and alternative transmission alignments, plus the following factors: landscape topography, vegetation cover, weather patterns, historic ignitions, and historic fire perimeters. All of these are factors that influence landscape-level wildfire behavior. The ways in which these factors limit the spread of wildfire are described here. Topographic features, such as mountain ridges, can serve as physical barriers to fire spread. In addition, physical barriers to wildfire spread can include water features, rocky un-vegetated terrain, urban landscapes, paved roads and highways, and manmade fuelbreaks. Large wildfires in San Diego County are primarily influenced by Santa Ana winds, which are southwesterly trending winds; areas substantially upwind of the overhead portions of the transmission line would not be affected by a Santa Ana wind-driven wildfire with its origin in the transmission ROW. Areas of lower annual precipitation result in reduced fuel loading and a correspondingly reduced susceptibility to fire. Finally and most importantly, historic fire perimeters, or the areas where fires were historically contained or where they naturally burned their course, are strong indicators of the limits of future wildfires. A visual depiction of how the El Capitan Fireshed was established is shown in the figure entitled “Final PMR Fireshed Topology Map” (presented at the end of Section 1). The yellow line depicts the El Capitan Fireshed, and the red line depicts the adjoining Poway Fireshed. As is demonstrated, the El Capitan Fireshed and the Poway Fireshed encompass a majority of the historic fire perimeters and fire ignition points on the landscape within the Santa Ana wind influence area relative to the transmission alignment. It can also be seen that the community of Harbison Canyon, located in the southern portion of the figure, was reasonably excluded from the El Capitan Fireshed boundary due to its location, which is directly downwind of the underground portion of the transmission line.

These fire-limiting factors were used to delimit the boundaries of the project firesheds. These firesheds represent the study area for the discipline of Fire and Fuels Management for the EIR/EIS. This study area remains valid and was delimited based on a reasonable set of fire-limiting factors, resulting in a reasonable and correct area of potential effect for the Fire and Fuels Management analysis presented in the EIR/EIS.

Fire Behavior Modeling in the EIR/EIS. The Fire Behavior Trend model analysis produced areas of potential impact of a wildfire originating at the transmission line. The model used actual vegetation

cover and simulated burn behavior from random ignitions within the transmission ROW, at a rate of one ignition every 500 feet, under both normal and extreme weather conditions and normal and extreme fuel moisture levels. The Fire Behavior Trend model therefore predicted how ignitions related to project construction, operation, and maintenance would affect the extent of fire damage by simulating wildfire behavior in the vicinity of the transmission line. The model generated an estimate of the number of acres that would burn and WUI Homes at highest risk if *multiple simultaneous ignitions* were to occur along the length of the transmission corridor.

Because large fires are often sparked by just one or two ignition sources, the outcome of the Burn Probability Model is necessarily “unrealistic”, as the transmission line would never be the cause of hundreds of simultaneous ignitions along the entire length of the corridor. Nonetheless, use of the model in the EIR/EIS was a reasonable and correct approach to the evaluation of the relative risk of multiple alternative transmission alignments.

In addition to delimiting the study area to project firesheds as describe above, the Fire Behavior Trend Model was delimited by wildfire burn duration. A 48-hour burn duration (identified as “4 burn periods” in the EIR/EIS) was used to simulate biophysical wildfire behavior during Santa Ana winds; the model was limited to this period because beyond this burn duration fire behavior would be influenced by firefighter suppression response, developed features on the landscape, and localized weather patterns that were determined to render the output of the biophysical model unreliable.

Major wildfires can, of course, burn longer than 48 hours, and therefore, during extreme fire weather, the extent of a wildfire could be greater and the shape of the fire perimeter could be different than simulated. The extent of a wildfire could also be smaller than modeled, due to the potential for future differences in fuel moisture content, fuel loads, wind speeds, development, and landscape features that were present at the time the EIR/EIS fuel inventory and wildfire modeling were completed. Despite this inherent uncertainty involved in simulating the behavior of natural phenomena, use of the model in the EIR/EIS was a reasonable and correct approach. Simulating uniform multiple random ignitions along the line was the only means of identifying the varying risk of individual segments of the line, and it provided a useful comparison of the relative risk of various routing alternatives evaluated in the EIR/EIS

Background on the Defensible Space Grants Fund and Assets at Risk. The intent of Mitigation Measure F-1e, the “Defensible Space Grants Fund,” was to identify homes at highest risk of a wildfire that might be ignited by the Sunrise Powerlink transmission project and reduce residential structure damage from such a fire. Homes at risk were identified through simulations of wildfire behavior in the project study area. A maximum of 1,382 homes was identified in the Final EIR/EIS and in the CPUC Decision as being those at highest risk of damage and those requiring mitigation for the significant, unavoidable wildfire impact that the transmission project presents in San Diego County, as identified in the Final EIR/EIS.

As presented in the Final EIR/EIS and the CPUC Decision, the number of “assets at risk” during extreme weather as a result of ignitions from the FESSR included (1) the number of *acres* that would be potentially burned during a severe fire originating from the transmission line, and (2) the number of *homes* that would be potentially burned during a severe fire originating from the transmission line.

The number of homes at risk presented in the EIR/EIS and the CPUC approved decision was estimated using San Diego County parcel data to identify the number of structures that met the following criteria:

- Parcel was zoned for residential use;
- Parcel was ¼ acre or greater in size;
- Parcel included a minimum of a single improved structure worth \$10,000 or more;

- Parcel laid within the project study area, or within one of the project “firesheds;”
- Parcel laid within the Fire Behavior Trend Model fireshed burn area; and,
- Parcel was within a community meeting the definition of an “Intermix” Wildland-Urban Interface (WUI) community or an “Interface” WUI community as published in the Federal Register on Thursday, January 4, 2001 (Vol. 66, No. 3). An Intermix WUI community is defined as having a population density between 28 and 250 people per square mile, where structures are interspersed throughout wildland areas on parcels less than 40 acres. An Interface WUI is defined as having a population density of 250 to 1,000 people per square mile, where there is a clear delineation between developed areas and wildlands.

It was assumed for the purposes of analysis in the EIR/EIS that structures meeting these criteria represented the homes at highest risk of structural damage or destruction in a large wildfire originating from the transmission line. Homes that were located beyond the EIR/EIS study area, i.e., beyond the boundaries of the project firesheds as defined in Section D.15, were not assessed. Homes were screened out of the highest-risk group that did not fall within a community meeting the federal definition of Intermix WUI or Interface WUI. Homes were screened out that did not meet a minimum parcel size of ¼ acre, as parcels smaller than ¼ acre do not allow for the creation of defensible space around a home. Urbanized areas were not included in the EIR/EIS fire behavior models, as these models are not designed to simulate fire behavior in landscapes where buildings, asphalt, sidewalks, and maintained ornamental plants have displaced wildland vegetation. The assessment was limited to any improved structure worth \$10,000 or more, rather than being inclusive of all structures with any economic value. It was assumed that structures that met the criteria were probably homes, and homes were the structures of highest concern in the affected communities.

Due to the assumptions of the Fire Behavior Trend Model described above, including the simulation of multiple simultaneous ignitions and the limitation of the burn period to 48 hours, it is unlikely that the WUI homes at highest risk identified in the Defensible Space Grants Fund would be the exact homes that would be damaged or lost in an actual fire originating from a single point along the transmission line. However, simulating uniform multiple random ignitions along the line was the only means of identifying the varying risk of individual segments of the line, and it provided a useful comparison of the relative risk of various routing alternatives evaluated in the EIR/EIS. The 1,382 WUI homes identified in the Defensible Space Grants Fund were determined to be those at highest risk. In summary, the EIR/EIS determined that damage or loss of the 1,382 WUI homes at highest risk in the event of a wildfire resulting from the Sunrise Powerlink project would be partially mitigated by implementation of Mitigation Measure F-1e, the Defensible Space Grants Fund. The number of homes at risk presented in the EIR/EIS was based on a reasonable set of assumptions, professional expertise, and a defensible modeling approach.

Public Comments

Commenters on SDG&E’s PMR presented concerns about the fire risk of the Sunrise Powerlink project or about the impact analysis for the modified route. Those comments include the following concerns:

- EIR/EIS and PMR should use County of San Diego Planning Department’s fire behavior modeling and assets at risk data. EIR/EIS underestimates number of homes threatened (addressed below)
- Verify the fuel modification zone around the perimeter of the Suncrest Substation. The draft Construction Fire Prevention Plan did not include a fire buffer (addressed in Section 2, PMR 29)

- PMRs need to address helipads, fuel modification along roadway, fuel modification around helipads, potential clearing in easements, and fire breaks around facilities (addressed in Section 1.2.3 and Table 1-4)
- PMR 17, EP 121A-1, will prohibit firefighting and aerial fire support in this area and will endanger residents of Sandy Creek Lane. Line was moved adjacent to the Berglund property and crosses the La Posta Truck Trail. The line so close and crossing the La Posta Truck Trail will eliminate any possibility of fire protection for their properties and their neighbors. This is an extreme fire danger area. Over a year ago the community met with SDG&E/Sempra and proposed a realignment that would enable firefighting around properties and along La Posta Truck Trail. (addressed in Section 2, PMR 17.)
- Modification created new fire risk at FS land 60112002 and 60118001 (addressed in Section 2, PMR 25)
- PMR says the modifications would not result in new significant public safety or fire hazard impacts; however, the FEIR conclusions related to fire were flawed because the fire analysis was performed with the Historical CalFire Maps of 1950 to 2007, which exclude fires on BLM and private land for the years between 1950 and 2003; 56 of the 60 years of fire history. (addressed below)
- The statement that the landscape is not defensible is factually wrong. Fire risk in this area, including El Monte Valley is severe, but it is defensible via air (and only air), as evidenced by our long history of successful fire suppression via air in this valley. In addition, the premise that this area is indefensible is not consistent with the claims by the local fire jurisdiction. (addressed below)
- MS-47: Shows the lake on the Wuest Ranch (upper left corner) that is used for a water source to fight fires in this remote area. How will the Sunrise Powerlink's proximity interfere with this important current use of a scarce surface water source. CAL-Fire reps have informed us that they will operate or fly within 1,000 feet of energized or de-energized powerlines. (addressed in Section 2, PMR 12)
- MS-67: Shows the proximity to the private ranch (APN 52817001). In the lower right corner of the photo is another scarce surface water source / lake that is accessed by fire fighters and helicopter. Due its proximity to the Sunrise Powerlink, will this source no longer be available? These private properties may no longer be deemed as defensible space due to the proximity of Sunrise to their homes and La Posta Truck Trail (addressed in Section 2, PMR 17)
- MS-118 & 119 Show the Powerlink's proximity to the El Capitan Reservoir and the narrow El Monte Valley residential/agricultural area. This raises fire fighting issues related to access to reservoir water to fight fires, and the Powerlink's proximity to homes impeding fire fighting abilities. This area has already been devastated in the recent firestorms. El Monte Road is a narrow two-lane dead end road. (addressed in PMR 34)

Project Firesheds and Fire Behavior Modeling in the EIR/EIS. The County of San Diego Department of Planning and Land Use commented on the approach taken in the EIR/EIS to model wildfire behavior, suggesting that the EIR/EIS underestimates the extent of a major wildfire event in San Diego County. Although wind-driven wildfires in San Diego County have the tendency to be larger than the potential burn areas shown in the Fire Behavior Trend Modeling analysis, the EIR/EIS analysis was confined to the project study area, defined as the project firesheds in the EIR/EIS. This approach is addressed in General Response GR-9, Fire Risk and the Comparison of Alternatives: Fire and Fuels Modeling in the Final EIR/EIS. As stated in General Response GR-9, the fire models presented in the EIR/EIS are based on defensible assumptions and a uniform protocol, and any modifications to the modeling inputs would introduce bias into the results. The protocol and assumptions are explained in detail above, and it is demonstrated that, although actual wind-driven wildfires in San Diego County may be smaller, larger, or

otherwise different than simulated, the approach taken in the EIR/EIS is reasonable and correct and does not underestimate the extent of a potential major wildfire caused by the Sunrise Powerlink Project in San Diego County as suggested by the County. The approach taken in the EIR/EIS was the best available means of comparing alternative transmission alignments.

Calculation of Assets at Risk in the EIR/EIS. The County also stated that it had performed an independent analysis of the number of structures at risk of wildfire from the approved route of the Sunrise Powerlink project. The County's letter states that according to its modeling, "2,650 homes" would be at risk for a 4-burn period within the anticipated fire perimeters modeled in the Sunrise EIR/EIS for the FESSR. By comparison, the Final EIR/EIS identified 1,382 homes⁶ at risk. The difference between the County's estimate and the EIR/EIS is a result of two factors:

1) the County's estimate included urban homes that would not be at highest risk of damage or loss in a wildfire because they lack adjacent wildland fuels. Specifically, the County's estimate of structures at risk was not screened for the Wildland-Urban Interface (WUI) risk factor. Therefore, it over-estimates the number of homes at risk because it includes urban homes that would not be at highest risk of damage or loss in a wildfire because they lack adjacent wildland fuels. The County's estimate includes closely-spaced urban homes on parcels less than ¼ acre in size that would not be subject to the defensible space requirement under Public Resources Code 4291. Any fire risk to these homes would not be mitigated by the creation of defensible space due to a lack of adjacent wildland fuels; and

2) the County's estimate included *all* structures potentially at risk (including garages, sheds, and barns) whereas the estimate in the EIR/EIS was limited to structures meeting the criteria of homes at risk, as defined above.

The County presented a useful "peer review" of the results of the Final EIR/EIS for the Sunrise Powerlink Project. However, the number of homes at risk presented in the Final EIR/EIS for the FESSR and in the CPUC Decision is based on reasonable assumptions and calculations and remains valid, and the results of the County's analysis does not result in a substantial increase in an existing significant impact or a new significant impact of the FESSR.

In addition to providing an estimate of the number of homes at risk, the County commented on the approach taken in the EIR/EIS to model wildfire behavior, suggesting that the EIR/EIS underestimates the extent of a major wildfire event in San Diego County. As noted above, areas located beyond the EIR/EIS study area, i.e., beyond the boundaries of the project firesheds as defined in Section D.15, were not included in the Fire Behavior Trend Model.

Wildfire History Data on BLM Lands.

Historic fire perimeters and ignitions data were used to characterize the environmental setting for the Fire and Fuels Management sections of the EIR/EIS and in the Wildfire Containment Conflict Model to characterize the degree of "defensibility" of the landscapes through which the Proposed Project and alternatives would pass and to determine whether transmission lines would adversely affect firefighting operations in defensible landscapes.

⁶ The Final EIR/EIS presented two values for the number of homes at risk that would be covered by Mitigation Measure F-1e, the Defensible Space Grants Fund. Appendix 3E (Figure Ap. 3E-12) reported a total of 1,382 homes at risk during extreme fire weather simulated for four burn periods; the Executive Summary (Table ES-3) and General Response GR-9 (Table GR.9-3) in Section 2 reported a total of 1,300 homes at risk during extreme fire weather simulated for four burn periods. The correct number for the FESSR is 1,382 homes at risk. The value of the Defensible Space Grants Fund would be based on this number of homes at risk for the FESSR.

Although the fire history and ignitions data set is incomplete, it helps to provide the best picture of whether fires can be successfully fought by firefighters or not. In the case of the approved route, the majority of BLM land along the route occurs for what was identified as the "BCD Alternative" in the EIR/EIS. Section E.2.15 of the EIR/EIS evaluated the potential for the transmission line to interfere with firefighting operations (Impact F-3) along this portion of the approved route using the Wildfire Containment Conflict Model as a basis for the analysis. The model results indicated that this landscape is not defensible due to the fuel load and rugged terrain. Any fire history data deficiency on BLM lands would not influence the model results because the effects of fuel and topography dominate the model results, masking any effect of fire and ignition history. The EIR/EIS concluded that any effect of the transmission on firefighting efforts would be less than significant for the BCD Alternative because the transmission line would occur in an already indefensible landscape.

Additional BLM lands occur along portions of what was referred to as the "Modified Route D Alternative" in the EIR/EIS. Effects of the transmission line on firefighting operations along this alternative were determined in Section E.4.15 of the EIR/EIS to be significant and unavoidable. Mitigation measures related to this impact will be required for the long-term operation of the approved route. Similar to the conclusion reached for the BCD Alternative on BLM lands, any data deficiency for the Wildfire Containment Conflict Model for BLM land along the Modified Route D Alternative would have no bearing on the significance conclusion made in the EIR/EIS because the maximum level of significance was determined for this impact (Impact F-3). The Wildfire Containment Conflict Model is described in detail in Section D.15.4.3 of the EIR/EIS.

Wildfire Containment Conflict Model and Landscape "Defensibility". The Wildfire Containment Conflict Model was used in the EIR/EIS to determine areas of significant aerial and ground-based firefighting conflicts created by the presence of the overhead transmission line. The model inputs were a suite of factors that restrict or conflict with firefighting efforts. Topography influences firefighting tactical approach: steep slopes and canyons are areas where firefighters will not attempt to suppress a wildfire because fires tend to burn at high intensities and rates of spread on steep slopes. The model assumes that a transmission line at the base of a steep slope would not present a firefighting conflict due to the indefensible nature of this topography. A transmission line at the crest of a hill would present a conflict.

"Indefensible landscapes" as defined in the EIR/EIS were therefore locations with dense fuels along steep slopes and canyon bottoms that are both strategically poor for firefighting and physically hazardous for firefighting personnel. The defensibility of a landscape was important to establish as the baseline environmental conditions in order to describe the effect of the transmission line on firefighting.

Evaluation

Updating the Fire Models in Accordance with the Project Modifications. In accordance with the County's suggestion to update the Fire Behavior Trend Model and the homes at risk calculation, the EIR/EIS Team reprocessed both the Fire Behavior Trend Model and the Wildfire Containment Conflict Model, and tallied the number of homes at risk and the number of significant miles of conflict for the project modifications. The results are presented here and in the figures entitled "Final PMR Route Overhead Portion Fire Behavior Trend Model, 4 Burn Periods – Extreme Weather" and "Final PMR Route – Overview Wildfire Containment Conflict Model" (figures are presented at the end of Section 1).

The number of homes at risk for the project modifications increased from 1,382 homes, as presented in the Final EIR for the FESSR, to 1,409 homes. This 2 percent increase in the number of homes at risk is

within the margin of error of the Fire Behavior Trend Model (+/- 2 to 3 percent⁷), and does not result in an actual increase in the absolute number of homes at risk. The Fire Behavior Trend Model represents a worst-case-scenario of impacts, and the number of homes at risk as modeled for the modified route does not represent an increase in an existing significant impact or a new significant impact of the FESSR. In order to err on the side of increased safety for residents in the vicinity of the modified route, the higher number of homes at risk (1,409) will be used to calculate the total annual value of the Defensible Space Grants Fund per Mitigation Measure F-1e. Damage or loss of the 1,409 WUI homes at highest risk in the event of a wildfire resulting from the Sunrise Powerlink project will therefore be partially mitigated by implementation of Mitigation Measure F-1e, the Defensible Space Grants Fund, which will ensure defensible space and fire-safe structural improvements to those homes at highest risk, although not to less than significant. This results in a Fund value of nearly \$3 million per year for the life of the project, which would ensure grants for defensible space and physical structure improvements to even more homes than what was required for the FESSR.

The number of miles of significant wildfire containment conflict decreased from 6.5 miles under the FESSR to 6 miles under the modified project.⁸ This is because the modified project would be two miles shorter than the FESSR and the realignment resulted in correspondingly shorter segments of significant conflict. However, the locations of significant wildfire containment conflict have not changed; see Final PMR Route – Overview Wildfire Containment Conflict Model. Because the locations of significant wildfire containment conflict have not changed from those identified by the model for the FESSR and because SDG&E has agreed to the calculation of fund value based on 6.5 miles of significant conflict, the amount of funds required for Mitigation Measure F-3a would not change. No substantial increase in a significant impact of the FESSR has been identified.

Conclusion. As discussed above, the project modifications would not significantly increase the project's fire-related impacts. The information presented in the County's June 7, 2010 letter regarding fire hazards does not show that the FESSR or the modified project will have any new significant effects not discussed in the EIR/EIS or a substantial increase in the severity of an impact previously examined in the EIR/EIS. The data used to model the project's fire-related impacts remains valid and the results of the modified project modeling are consistent with the conclusions of the Final EIR/EIS. In addition, the other fire-related comments on the PMR similarly do not demonstrate any new significant effects or a substantial increase in the severity of an impact. Therefore, impacts related to fire do not require supplemental analysis under CEQA or NEPA.

⁷ The margin of error of the Fire Behavior Trend Model polygon is approximately +/- 2 to 3 percent. This margin of error is a result of two factors. The first factor, resulting in a maximum of approximately 2.4 percent error, is a result of the quanta of raster (spatial) data used in the model. The raster quantum used in the Fire Behavior Trend Model is 60 square feet. Because random ignitions were simulated along the transmission alignment in the Fire Behavior Trend Model, iterations of the model can result in variable simulated points of ignition for identical alignments. This slight variation of ignition points can result in a slight variation in the burn polygon, which is made up of 60 square foot rasters. This can result in a variation in burn polygon area of up to 60 feet on all sides, or up to 2.4 percent. This error is a result of the nature of random simulation combined with the quantum nature of spatial data. The second source of error in the Fire Behavior Trend Model lies in the variation amongst the dozen sources of GIS meta-data used in the Fire Behavior Trend Model. This error has not been quantified, as it would require extensive field-verification and was beyond the scope of the EIR/EIS, but is expected to be less than 1 percent.

⁸ Appendix D, Mitigation Measures, of the CPUC Decision 08-12-058 granting a certificate of public convenience and necessity for the Sunrise Powerlink Project Transmission Project, identifies the locations of significant conflict along the FESSR, for a total of 6.5 miles.

1.6 Air Emissions and Air Quality Analysis

SDG&E Modification. The changes to the FESSR that SDG&E has proposed in the PMR are defined generally in the introduction to Section 1 above, and in more detail in SDG&E’s PMR itself. Most of these changes have resulted in the reduction of construction-related air emissions, because there are fewer structures to build, fewer areas and acres of ground disturbance, and fewer miles of access roads. The increase in transmission towers built using helicopters would increase the air emissions from helicopters and the increase in water haulage would increase the air emissions from the trucks used to haul water. Additionally, while temporary ground disturbance associated with use of construction yards would decrease by 46 percent, the amount of ground disturbance at some individual subunits would increase and result in minor increases in air emissions for those individual subunits. However, air emissions from construction of the modified project as a whole would be much lower than those of the FESSR.

Final EIR/EIS Discussion. The estimated air emissions of the FESSR are presented in Final EIR/EIS Sections E.1.11 (Interstate 8 Alternative), E.2.11 (BCD Alternative), and E.4.11 (Modified Route D Alternative). The emissions shown in the Final EIR/EIS for the Environmentally Superior Southern Route are summarized in Table 1.1.

Table 1.1. Emissions from Construction of Environmentally Superior Southern Route, from Final EIR/EIS

Construction Activity	NOx (ton/yr)	VOC (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	CO (ton/yr)	SOx (ton/yr)	CO ₂ (ton/yr)
Imperial County Total	100.8	13.1	175.1	24.3	55.5	1.6	10,775.5
Imperial County, General Conformity <i>de minimis</i> Threshold	100	100	70	70	---	---	---
San Diego County Total	342.9	44.4	595.5	82.8	188.8	5.5	36,644.1
San Diego County, General Conformity <i>de minimis</i> Threshold	100	100	---	---	---	---	---
Significance Criteria	40	14	15	10	100	40	0
Exceed Significance Threshold?	Yes	Yes	Yes	Yes	Yes	No	*

Source: EIR/EIS Appendix 10.

* For discussion of impact significance of CO₂ emissions and greenhouse gases, see Final EIR/EIS Section D.11.13.3.

Table 1.1 shows that construction-phase emissions would cause significant and unavoidable air quality impacts (Impact AQ-1, Class I). Three mitigation measures are defined in Section D.11.20 for Impact AQ-1; MM AQ-1a, Suppress dust at all work or staging areas and on public roads, MM AQ-1b, Use low-emission construction equipment, and MM AQ-1h, Obtain NO_x and particulate matter emission offsets. These measures were adopted by the CPUC and BLM and apply to the FESSR.

Public Comments. Commenters indicated concern that the truck transport of water during construction would result in air emissions not previously evaluated. In addition, other changes were highlighted as concerns related to potentially increased air emissions, including the use of a particularly large helicopter, changes to reconductoring plans, and changes in ground disturbance in specific areas.

The San Diego County Air Pollution Control District (SDAPCD) separately filed comments to the USFS regarding the PMR on June 23, 2010. The SDAPCD indicated concerns of a large underestimate of particulate matter emissions due to activity on unpaved surfaces, a significant underestimate of emissions from helicopter operations, a lack of quantification of emissions from blasting, and missing or disputed emissions estimates for unpaved road emissions, wind erosion, material delivery activity, and earthmoving activity.

Evaluation. In June 2009, SDG&E provided updated air emissions estimates reflecting the level of activity expected to occur with the FESSR. The emission estimates and SDG&E's general mitigation strategy were made available for CPUC and public review in 2009 (Air Quality Mitigation Program for Construction Air Emissions, including attachments [AQMPC], dated June 9, 2009), and SDG&E later filed details on how activity could be capped as part of a Construction Emissions Monitoring Plan (CEMP, January 21, 2010).^{9,10} The PMR did not recalculate the air emissions for the modified project. However, in response to questions from the CPUC, SDG&E submitted additional emissions information on the activities assumed for the modified project as compared with the construction activities assumed for the FESSR in the June 2009 AQMPC.¹¹ The CPUC and BLM reviewed this data and found that the air emissions for the modified project would be similar to the air emissions for the FESSR as shown in the AQMPC, as further discussed below. As such, both the emission estimates and general mitigation strategy from June 2009 and the CEMP from January 2010 are still applicable and valid for the modified project and SDG&E will be required to comply with these measures.

In response to the SDAPCD comments, SDG&E provided additional information in a letter to CPUC and BLM dated July 13, 2010. In that letter, SDG&E claims that particulate matter emissions are not subject to the federal General Conformity Rule, as is noted in the Final EIR/EIS (Section D.11.4.1 and elsewhere).

Helicopter use was considered as part of the Final EIR/EIS, the AQMPC (June 9, 2009, see page 40-44) and the CEMP (January 21, 2010, see page 4). The PMR assumes approximately 230 structures would be built using helicopters, which is a greater number than was assumed in the Final EIR/EIS. However, the expected helicopter activity in both the Final EIR/EIS and the AQMPC included a greater number of helicopter hours than required for the PMR construction of 230 transmission structures. This is in part because SDG&E plans to use helicopters to ferry tower sections to final assembly areas, to install transmission lines, and to shuttle workers to more remote tower locations (see page 6 of the AQMPC). The AQMPC estimates 2 hours of heavy lift helicopter flight, 4 hours of medium lift helicopter flight, and 10 hours of light lift helicopter flight per structure, and assumes one structure per day of construction (see page 40 of the AQMPC), for a total of approximately 450 helicopter days or 450 structures built using helicopters. This level of activity appears sufficient for SDG&E to build the 230 structures, and the emission calculation presented in the AQMPC accounts for the additional helicopter use proposed for the modified project.

The air emissions for the FESSR were derived from the estimated construction equipment proposed for the original project which assumed many thousands of hours of small and heavy lift helicopter use (see Appendix 10, page 4-6). It did not specify the number of transmission structures to be built using helicopters. The modified project reflects the level of helicopter use that was predicted in the July 2009 AQMPC, which was lower than the emissions assumptions for the FESSR. CPUC would monitor and limit the total fuel used by helicopters relative to a cap of 497,514 gallons for the overall project total, as part of implementing the AQMPC and CEMP. SDG&E has committed to tracking helicopter use by project link

⁹ For the Air Quality Mitigation Program for Construction Air Emissions see <http://www.cpuc.ca.gov/environment/info/aspensunrise/otherdocs/AQ%20Mitigation%20Program%20060909.pdf>. For the Construction Emissions Monitoring Plan see <http://www.cpuc.ca.gov/Environment/info/aspensunrise/otherdocs/Construction%20Emission%20Monitoring%20Plan.pdf>

¹⁰ The CEMP specifies tracking construction activity relative to the following caps: off-road equipment operation of 74,706,064 brake horsepower-hours (bhp-hr); helicopter fuel use of 497,514 gallons; and on-road heavy-duty diesel truck deliveries of 1,900,000 vehicle miles traveled (VMT).

¹¹ Correspondence dated June 25, 2010 and July 6, 2010 from Alan Colton, SDG&E, to Susan Lee, Aspen Environmental re SDG&E responses to questions received from CPUC related to the PMR.

and providing this information to the CPUC on a quarterly basis. The monitoring would allow CPUC to verify that actual emissions do not exceed those forecasted. If targets are not met, SDG&E has committed to taking corrective actions as necessary and provide further written documentation to ensure the targets are met, see CEMP Section 4.

Table 1.2 shows the FESSR Construction-Phase Emissions with emission reduction strategies and activity limited in a manner consistent with the AQMPC and CEMP. SDG&E has committed to complying with the *Construction Emissions Monitoring Plan*, to track and verify the effectiveness of the mitigation measures and project internal emission reductions detailed in the Mitigation Program.

Table 1.2. Emissions from Construction of FESSR, with AQMPC and CEMP Implemented

Construction Activity	NOx (ton/yr)	VOC (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	CO (ton/yr)	SOx (ton/yr)	CO ₂ (ton/yr)
Imperial County Total	29.9	5.5	51.9	Not inc.	24.8	0.6	6,054.0
Imperial County, General Conformity <i>de minimis</i> Threshold	100	100	70	70	---	---	---
San Diego County Total	89.8	16.4	155.8	Not inc.	74.5	1.8	18,162.1
San Diego County, General Conformity <i>de minimis</i> Threshold	100	100	---	---	---	---	---
Significance Criteria	40	14	15	10	100	40	0
Exceed Significance Threshold?	Yes	Yes	Yes	Yes	No	No	*

Source: SDG&E Air Quality Mitigation Program for Construction Air Emissions, including attachments [AQMPC], dated June 9, 2009.

* For discussion of impact significance of CO₂ emissions and greenhouse gases, see Final EIR/EIS Section D.11.13.3.

Table 1.2 shows that emissions included in the AQMPC would be reduced substantially when compared to the results analyzed in the Final EIR/EIS. The Final EIR/EIS based air emissions for heavy duty trucks, including water trucks, on a gross estimate of 5.2 million vehicle miles traveled (VMT). After further review, the July 2009 AQMPC estimated the total Sunrise Project heavy-duty on road truck traffic to be under 1.9 million VMT. Of the 1.9 million VMT total, approximately 330,000 VMT was projected for water transportation. In addition, 1.2 million VMT was estimated for local material deliveries, 158,000 VMT for port marshalling of materials, 179,000 VMT for fuel transportation, and 29,000 VMT for equipment deliveries.¹²

Since the publication of the AQMPC, SDG&E has made a number of revisions to the FESSR based on compliance with mitigation measures and final engineering. The revisions have been presented as the modified project evaluated in this memorandum. The modified project includes a higher number of estimated VMT than what was predicted in the July 2009 AQMPC. Specifically, SDG&E now estimates 1.2 million VMT for water transportation over 12 months of construction for the delivery of recycled water to construction sites per Mitigation Measure S-3b which requires SDG&E to obtain reclaimed water where feasible (see PMR, Attachment D).

Although this is a higher VMT estimate for water transportation than predicted in the July AQMPC, the expected number of truck trips for other project activities has decreased. For example, the estimate for local material deliveries is now 500,000 VMT; the estimate for port marshalling of materials is 110,000 VMT; the estimate for fuel transportation is 54,000 VMT; and the estimate for equipment deliveries is 23,000 VMT.¹³ The CPUC and BLM have reviewed the data provided in the PMR and the additional data

¹² Correspondence dated June 25, 2010 and July 6, 2010 from Alan Colton, SDG&E, to Susan Lee, Aspen Environmental re SDG&E responses to questions received from CPUC related to the PMR.

¹³ Ibid.

provided by SDG&E regarding the overall vehicle miles travelled for the modified project and have determined that the overall emissions created by vehicle miles travelled and use of construction equipment of the modified project are consistent with the emissions estimated in the AQMPC and would not create new significant impacts or substantially increase the severity of the impacts created by the FESSR as estimated in either the AQMPC or the Final EIR/EIS.

As stated in the Final EIR/EIS, Section D.11.13, Overall Air Quality Impacts of Proposed Project, implementation of Mitigation Measures AQ-1a and AQ-1b would minimize ozone precursor and particulate matter pollutant emissions but not to levels below the General Conformity *de minimis* thresholds in Imperial County or San Diego County. The Final EIR/EIS noted that BLM would need to either complete a full conformity determination for the FESSR or adopt additional mitigation (Mitigation Measure AQ-1h) to reduce project emissions to below the *de minimis* levels. The ultimate level of additional mitigation was to be based on a refined estimate of construction-phase ozone precursor emissions within each nonattainment area, depending on the ultimate engineering, design, and phasing of the project. As shown in Table 1-2, construction-phase activities and emissions under the PMR would now be limited in accordance with the AQMPC (June 9, 2009) and the fuel use cap and other activity caps in the CEMP (January 21, 2010). The resultant emissions are expected to remain less than the federal General Conformity *de minimis* thresholds for the San Diego Air Basin and would no longer reach the threshold that triggered Mitigation Measure AQ-1h. Mitigation Measure AQ-1h, which involves achieving emission reductions to levels below the federal thresholds, would no longer be required to reduce impacts and would become unnecessary under the PMR.

As with the other air emissions, Table 1.2 shows a decrease in greenhouse gas emissions when compared with Table 1.1 for the FESSR. The CPUC and BLM have reviewed the changes SDG&E proposed in the PMR, and the additional data provided by SDG&E regarding the construction for the modified project and have determined that the overall greenhouse gas emissions of the modified project would not create new significant impacts or substantially increase the severity of impacts created by the FESSR as estimated in the AQMPC or the Final EIR/EIS. Further, Mitigation Measure AQ-4a requires SDG&E to mitigate GHG emissions from construction at the EIR/EIS's original estimates. (See Final EIR/EIS at Ap.12-102-103.) SDG&E subsequently executed a purchase contract for GHG reduction credits created by The Conservation Fund through conservation-based forest management in Mendocino County at the Big River/Salmon Creek Forest Project (SDG&E letter to CPUC dated October 20, 2009). Thus, SDG&E will use Carbon Reduction Tonnes (CRTs) to offset the 110,000 tons of GHG emissions estimated in the EIR/EIS, even though construction of the project will actually result in fewer GHG emissions.

Air quality impacts related to project operation are not expected to result in a substantially more severe impact because the route alignment for the modified project would be two miles shorter than the FESSR and would require essentially the same operations and maintenance as the FESSR. While more structures would be maintained by helicopter, there would be overall fewer transmission towers and fewer miles of alignment to maintain (443 structures for the modified project compared with 481 structures for the FESSR).

Conclusion. Construction-phase activities and emissions under the PMR would be limited in accordance with the AQMPC (June 9, 2009) and the fuel use cap and other activity caps in the CEMP (January 21, 2010). The resultant emissions are expected to remain less than the federal General Conformity *de minimis* thresholds for the San Diego Air Basin. Mitigation Measure AQ-1h, which involves achieving emission reductions to levels below the federal thresholds, would no longer be required to reduce impacts and would become unnecessary under the PMR. However, all other feasible mitigation would remain applicable and valid, and construction-phase emissions would remain significant and unavoidable consistent with the conclusions of the Final EIR/EIS (Impact AQ-1, Class I).

1.7 General Issues Related to Cultural Resources

In analyzing impacts to cultural resources, the EIR/EIS relied on the best available data for each potential alternative route. At that time, the best available data for analysis on such a large scale was limited to the number of cultural sites within the survey corridor and proposed ROW. The exact locations of impacts for towers, lay downs, yards, and roads were not known or well-defined. In order to provide a fair comparison between the FESSR and the modified project identified in the PMR, the evaluation of incremental difference in impacts to cultural resources between the FESSR and the modified project has been generalized to replicate the analyses originally conducted for the EIR/EIS. Therefore, the comparison between the FESSR and the various subunit modifications detailed in Section 2 to this document identifies all sites within the archaeological survey corridor (i.e., ROW, pull sites, access roads, etc.), which was defined under Section 106 of the National Historic Preservation Act as the Area of Potential Effect/Direct Impact Areas. This includes all sites in the ROW, whether or not any construction activity is proposed there. The PMR includes all sites that could be impacted. It does not account for all of the adjustments in road alignments or tower placements that were subsequently made specifically to avoid cultural resources.

The lists of cultural sites in SDG&E's PMR reflect site definitions that have since been refined during subsequent fieldwork. For example, in several cases, sites identified as single sites in the PMR have now been combined to form a larger site as a result of discovery of additional archaeological materials between formerly separate sites, thereby linking the smaller sites into a single larger site. Such discoveries occurred during field inspections to refine the placement of towers, roads, and other facilities to avoid direct impacts to cultural resources. This leads to some minor discrepancy in the number of sites that are mentioned in the PMR and the number of sites that will be impacted, as shown in the attachment to Section 2.

In developing final project design, SDG&E has continually changed the specific locations of project features to avoid impacts to specific cultural resources as required by mitigation recommended in the Final EIR/EIS. Therefore, while the original analysis in the PMR identified all sites within the ROW that could be impacted, most sites will not be directly affected by construction. There are many ways that this has been accomplished. For example, the project design of the PMR may show that a yard or a tower overlaps a portion of an archaeological site. In many cases, the working limits of the yard or the tower can be reduced enough to completely protect the site from impacts. Sites that are near, but not within a construction area will be fenced and monitored during construction by a professional archaeologist and a Native American consultant, as required by Mitigation Measure C-1b, Avoid and protect potentially significant resources, and Mitigation Measure C-1e, Monitor construction at known ESAs. Likewise, all sites within the Forest Service would be avoided by the establishment of an Environmentally Sensitive Area (exclusion zone), as required by Mitigation Measure C-1b, Avoid and protect potentially significant resources, and Mitigation Measure C-1e, Monitor construction at known ESAs as required by the Forest Service ROD mitigation measures. By incorporating mitigation identified in the Final EIR/EIS to reduce impacts to cultural resources, the modified project is consistent with the conclusions of the Final EIR/EIS. Although sites may appear to be within an area of direct impact, there is enough flexibility to protect these sites during construction, avoiding all direct impact. Additionally, the maps provided by SDG&E to the cultural specialists depicting the modified project and the cultural resources boundaries show that many access roads will transect archaeological sites, but they do not show that most of these access roads will cause no adverse impact because they will use existing roads without modification. Any site damage that has already occurred along the roads will not be caused by or exacerbated by the Project. Please see the cultural resources attachment to Section 2 regarding the archaeological sites that would be potentially impacted, the efforts SDG&E has made to avoid the sites, and the rationale for areas where sites cannot be avoided.

1.8 Construction Haulage Noise

SDG&E Proposal. In the “Sunrise Powerlink Powered Haulage Estimated Acoustical Impact Potential” study prepared by Investigative Science and Engineering, Inc. (ISE) to address Mitigation Measure N-1a (Attachment C of the PMR), ISE calculates which portions of the on-road haulage roadway segments have the potential to increase background noise levels (denoted in California as the Community Noise Equivalent Level or CNEL) to the point of being discernable or creating adverse conditions to sensitive receptor areas. The ISE study states that a significant impact would occur if two conditions are met: 1) Project-related traffic produces a net increase to the ambient CNEL level of 3.0 dBA or greater, and, 2) The increase exposes sensitive receptor areas to a sound level of 60 dBA CNEL or greater where it was not exposed to this level before the addition of the proposed project action. The ISE report concludes that the short-term powered haulage due to the proposed Sunrise Powerlink Project would not result in a significant acoustical impact. Based on the ISE study, SDG&E states that mitigation of increased noise will not be necessary for the transportation of reclaimed water during the construction of the Sunrise Powerlink, and no significant environmental impacts were identified.

Public Comments. Commenters on the PMR expressed concerns regarding the noise created by construction traffic.

Final EIR/EIS Discussion. The Final EIR/EIS addresses construction noise in Sections E.1.8 (I-8 Alternative, Noise), E.2.8 (BCD Alternative, Noise), and E.4.8 (Modified Route D Alternative, Noise). The significance criteria presented for construction noise evaluated whether the project would result in a substantial (more than five dBA) temporary or periodic increase in ambient noise levels above levels existing without the project at sensitive receptor locations, see EIR/EIS Section D.8.4.1, Noise Significance Criteria.

The Final EIR/EIS concluded that construction of the FESSR would result in increased ambient noise levels along all transport access routes and would result in a significant (Class I) impact by causing substantial noise increases at rural residences and other noise-sensitive uses. Mitigation Measure N-1a, Implement Best Management Practices for construction noise, was required. However, the exact locations of the increased ambient noise levels were unknown at the time of the publication of the Final EIR/EIS as the haul routes had not yet been identified.

Evaluation. Attachment C to the PMR, Sunrise Powerlink Powered Haulage Estimated Acoustical Impact¹⁴, is a study of the estimated vehicular trip noise levels, associated impact contour distances, and potential for impact to sensitive land use areas. The vehicular trips were predicted by the project traffic engineer and incorporate the “worst case scenario” for reclaimed water deliveries. The noise study was reviewed by the CPUC and BLM. The routes shown on the figures provided in the ISE study depict areas exposed to a sound level of 60 dBA CNEL or greater where not exposed to this level before the addition of the proposed project action (i.e., either the FESSR or the modified project). Most of the routes avoid sensitive receptors, in accordance with Mitigation Measure N-1a, Prepare Construction Notification Plan which requires SDG&E to route construction traffic away from residences and schools, where feasible. One location near Potrero Valley Road, in the area south of Round Potrero Drive, indicates a sound level of 60 dBA CNEL or greater in areas adjacent to the route which would not have been exposed to this level without either the FESSR or the modified project, a significant impact per the ISE study criteria. However, this does not represent a new significant impact above and beyond what was analyzed in the EIR/EIS because the haul routes were not defined for the FESSR in the Final EIR/EIS, and the impact was

¹⁴ See Attachment C of the PMR, The Sunrise Powerlink Powered Haulage Estimate Acoustical Impact Potential ISE Project #10-00 at http://www.cpuc.ca.gov/environment/info/aspen/sunrise/pmr/sdge_final_pmr_051410.pdf

analyzed as a significant and unmitigable impact along the entire FESSR construction routes and this information is consistent with the conclusions in the Final EIR/EIS. The definition of the haul route locations does not result in new significant impacts or substantially increase the severity of the significant impacts identified in the Final EIR/EIS.

However, SDG&E's Attachment C used a different significance criterion than the Final EIR/EIS. As stated above, the Final EIR/EIS considered whether the project would result in a substantial temporary or periodic increase in ambient noise levels above levels existing without the project at sensitive receptor locations, regardless of whether this would result in a sound level of 60 dBA CNEL or greater. As such, SDG&E will need to model the net increase in noise level (SPL), shown on Table 2, Traffic Segment Noise Impact Comparison at sensitive receptors locations pursuant to Mitigation Measure N-1a prior to construction to comply with this mitigation. Compliance with this mitigation measure will be monitored under the Mitigation Monitoring Compliance Reports and will be addressed in each Notice to Proceed. If either the FESSR or modified project haul routes result in an increase of 5 dBA or greater at sensitive receptor locations, this would result in a significant impact consistent with the analysis for the FESSR in the Final EIR/EIS and Mitigation Measure N-1a, Implement Best Management Practices for construction noise, would be required.

Conclusion. Based on the review of the PMR and Attachment C, the noise associated with the construction haulage would not result in a significant impact not identified in the Final EIR/EIS nor would it result in a substantial increase in severity of the impact. An increase in noise along construction haul routes was identified in the Final EIR/EIS and the information provided defining the haul routes does not impact the validity of the conclusions of the Final EIR/EIS. However, SDG&E will need to model the haulage route using the Final EIR/EIS criteria in order to comply with Mitigation Measure N-1a.

1.9 Cumulative Impacts Analysis

SDG&E Modification. There were no modifications suggested by SDG&E that would require an update to the cumulative projects list. However, given the time that has passed since completion of the Final EIR/EIS (published in October 2008), and because of NEPA requirements, this update is considered. The NEPA adequacy worksheet requires BLM to consider whether the cumulative impacts that would result from implementation of the proposed action (in this case the project modifications) are similar (both quantitatively and qualitatively) to the cumulative impacts analyzed in the existing NEPA documents.

Final EIR/EIS Discussion. The Final EIR/EIS addressed cumulative impacts of the FESSR in Section G.4.2 Table G-3 (starting on page G-78) included a list of reasonably foreseeable projects for the alternative transmission line routes where other project impacts that could combine with the impacts of the FESSR to create cumulatively significant effects, and includes the following projects among many others:

- La Rumorosa Wind Area (potential development of over 1,000 MW of wind generation in Mexico south of the Jacumba area with transmission into the U.S.)
- Stirling Energy (a solar generating facility in Imperial County of thousands of acres)
- Numerous residential subdivisions in San Diego and Imperial County, including the areas of El Centro, McCain Valley, Boulevard, Alpine, Japatul Valley, and Lakeside
- Geothermal leasing of federal lands (over 40,000 acres)
- Crestwood Wind Project (up to 791 MW on 17,000 acres in the McCain Valley)

This list was updated prior to the publication of the Final EIR/EIS in October of 2008. In addition to renewable projects, numerous other large-scale projects were included in the cumulative scenario.

In the time since publication of the Final EIR/EIS, new projects have been identified, including several solar projects on private land, a racetrack project in Ocotillo, and the Pattern Energy Ocotillo Express wind project. In addition, many housing projects identified in Table G-3 are not being developed due to the more challenging economic climate.

Evaluation. Since the time of publication of the Final EIR/EIS, a number of wind and solar projects have been proposed in San Diego and Imperial Counties, while other projects included in the cumulative scenario have since been cancelled. As detailed above, the cumulative scenario already incorporated a number of renewable, large-scale projects covering tens of thousands of acres in San Diego and Imperial Counties in addition to other large-scale projects such as housing developments covering thousands of acres. To be conservative, the cumulative analysis in the EIR/EIS also assumed that all projects in the cumulative scenario would be built and operating during the operating lifetime of the Proposed Project, which is not likely to be the case.

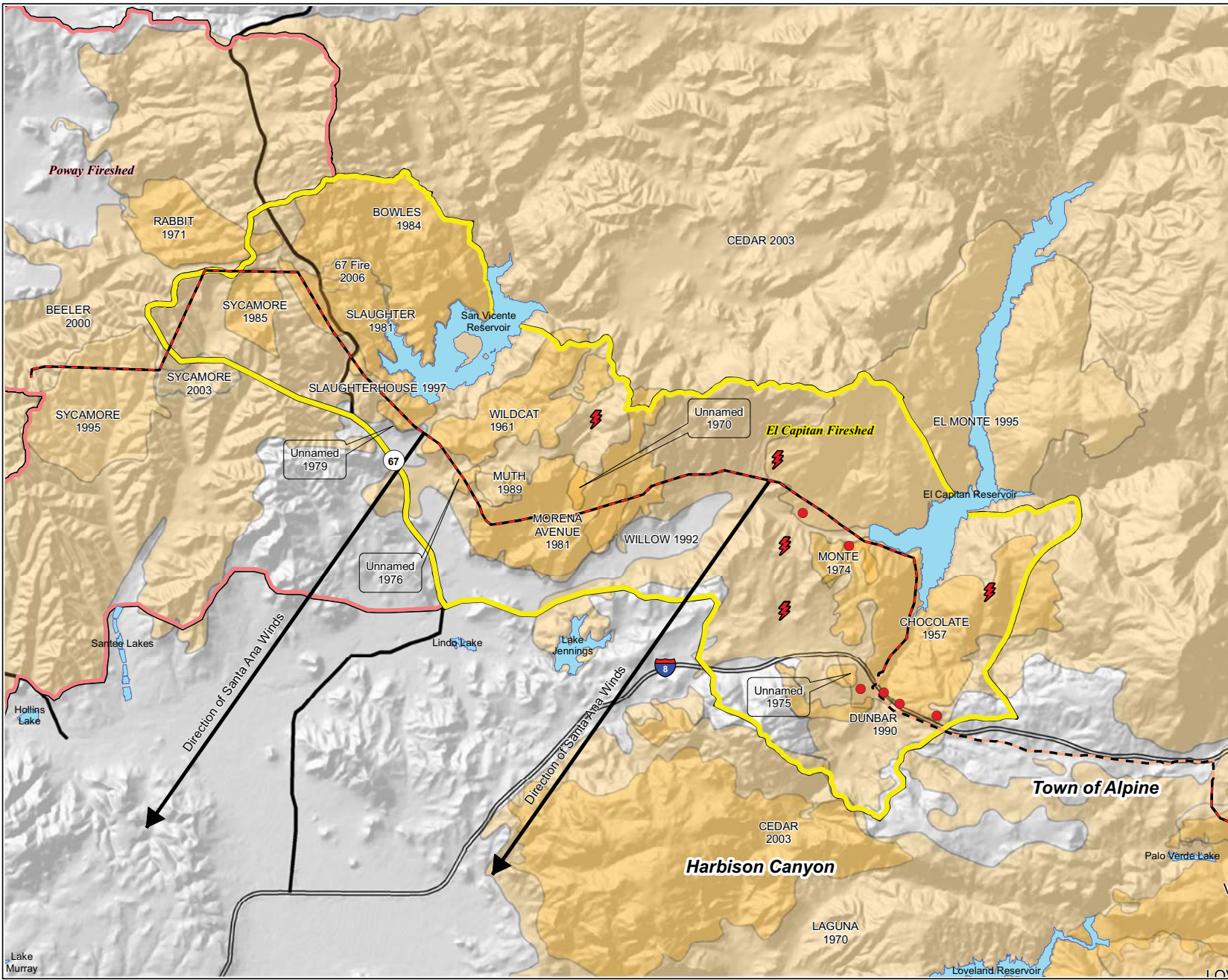
While the cumulative scenario has changed since the publication of the proposed project, the incremental contribution of the modified project would not change substantially from that analyzed for the FESSR and the analysis of cumulative impacts in the Final EIR/EIS remains valid. This is because, as stated above, the modified project would result in fewer acres of disturbance resulting in a decrease in impacts to biological resources; and would not result in new significant impacts or in a substantial increase in severity of impacts identified for the FESSR, as shown in Section 2. While the cumulative scenario has changed, “an agency need not supplement an EIS every time new information comes to light after the EIS is finalized.” (*Marsh v. Oregon Natural Resources Council*, 490 US 360, 374 (1989)) This is true under both NEPA and CEQA. (See, e.g., *River Valley Preservation Project v. Metropolitan Transit Development Board* (1995) 37 Cal.App.4th 154.)

Conclusion. There were a number of large acreage projects included in the Final EIR/EIS cumulative analysis, and the Final EIR/EIS included the conservative assumption that all projects in the scenario would be built during the life of the project. In addition, many of the projects included in the impact assessment are no longer going to be constructed, or are much delayed. Therefore, new renewable projects proposed in the counties would not change the cumulative scenario conclusions and the conclusions remain valid. Additionally, the modified project would not result in a substantial increase in severity of impacts identified for the FESSR as seen in Section 2 of the CPUC and BLM Memorandum. As such, the project modifications would not change the cumulative impact analysis, would not result in increased levels of environmental impact or new significant impacts, and would remain consistent with the Final EIR/EIS. Therefore additional CEQA/NEPA review is not required.

1.10 Notification

A number of comments on the PMR stated that additional notification regarding the modified project was required. There is nothing in CEQA or NEPA requiring the CPUC or BLM to issue notice that they are reviewing the PMR. Notice would only be required if the agencies determined that additional environmental review was required under CEQA and/or NEPA.

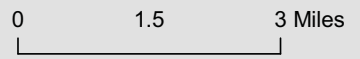
Additionally, notification required per mitigation measures in the Final EIR/EIS is still required; see for example Mitigation Measure L-1a, Prepare Construction Notification Plan.



Final PMR Fireshed Topology Map

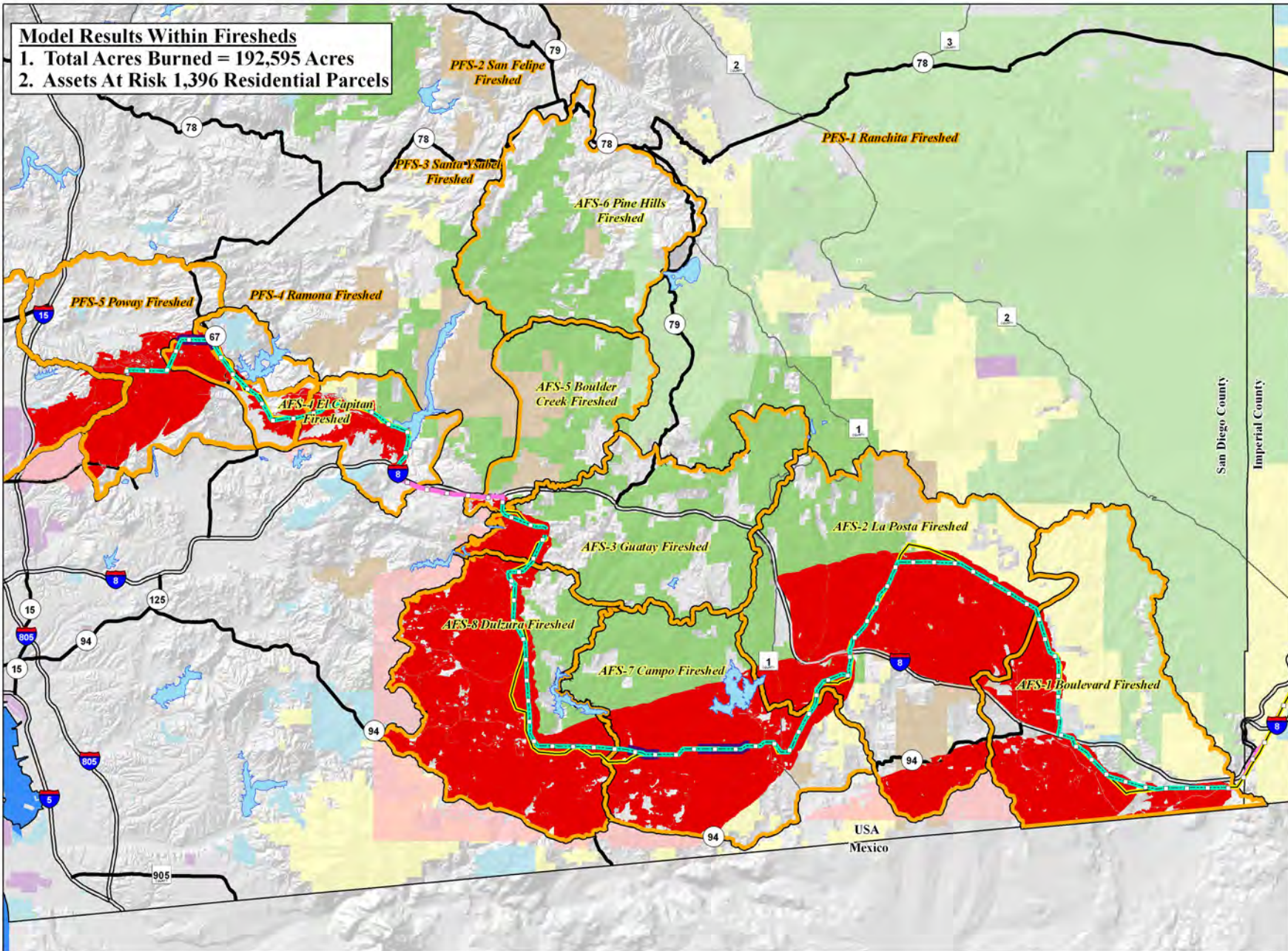
- Sunrise Final PMR Route Overhead Portion
- Sunrise Final PMR Route Underground Portion
- Human Caused Ignitions
- Lightning Ignitions
- El Capitan Fireshed - 34,150 acres
- Poway Fireshed - 44,896 acres
- 50 year Fire History - El Capitan Fireshed
- San Diego County Road
- Urban Freeway or Expressway
- Urban Interstate
- Major Waterbodies

1 inch = 1.42 miles



July 2010

Model Results Within Firesheds
 1. Total Acres Burned = 192,595 Acres
 2. Assets At Risk 1,396 Residential Parcels



Proposed Project and Alternative Routes

- Final PMR Route Above Ground Portion
- Final PMR Route Underground Portion
- Environmentally Superior Southern Route
- Milepost
- Road
- Interstate
- Major Water Bodies
- Proposed Project Firesheds
- Wildfire Containment Conflict Model - Minimum 1.5 mile Segments
- Extreme Fire Weather - Fire Behavior Trend Modeled within Firesheds
- Extreme Fire Weather - Estimated Fire Perimeter - (Limited Fuel Model Data)

Jurisdictional Land Ownership

- U.S. Forest Service Land
- Bureau of Land Management Land
- Department of Defense Land
- State Land
- State Park
- Tribal Land

San Diego County
Imperial County

USA
Mexico

0 15,000 30,000 Feet
0 4 8 Miles

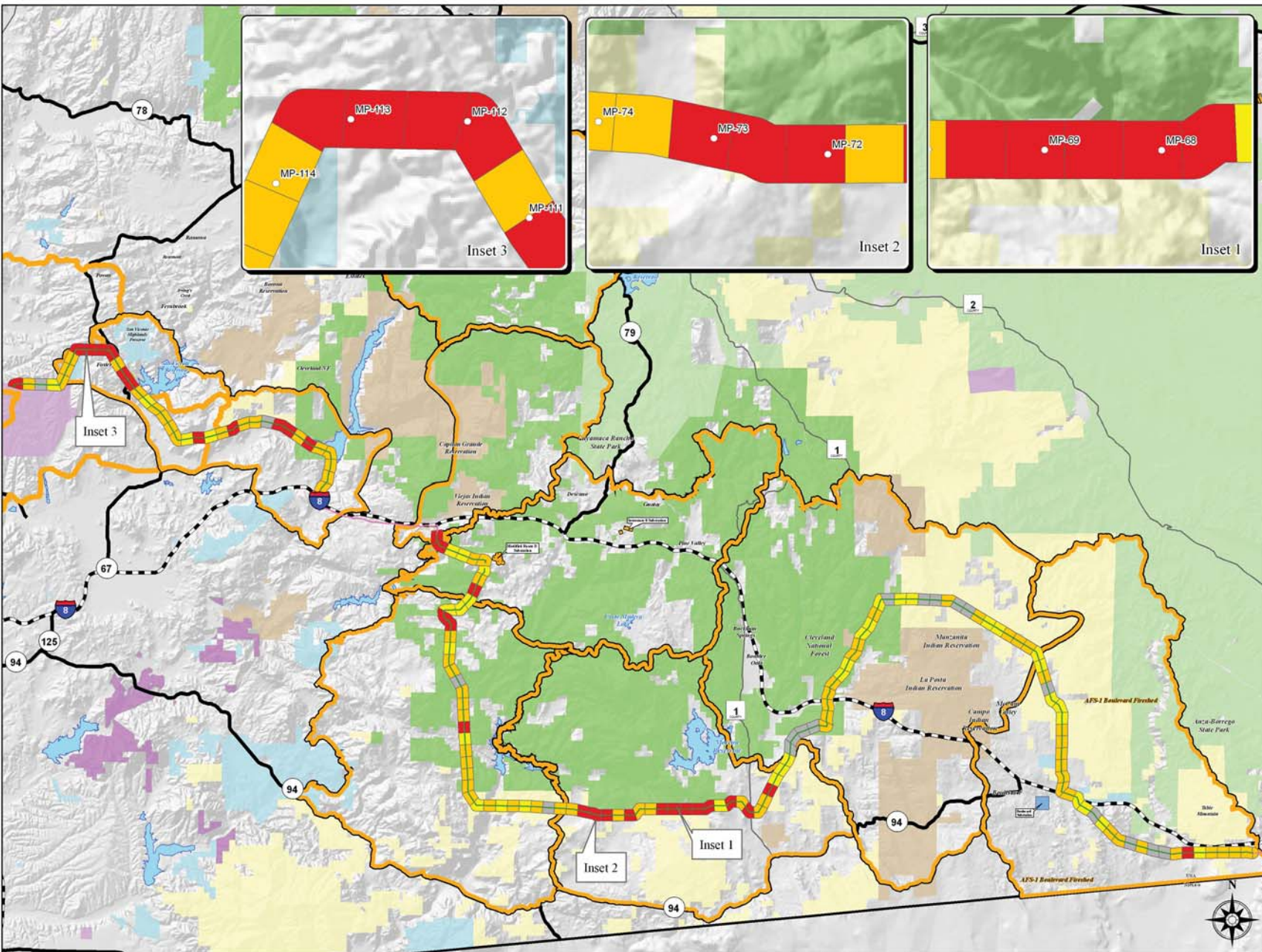
Aspen Environmental Group

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 Professional Forestry & GIS Services
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 www.fdc-co-op.com

Sunrise Powerlink Project

Final PMR Route
Overhead Portion
Fire Behavior Trend Model
4 Burn Periods - Extreme Weather

Final PMR Map



Final PMR Route

- Final PMR Route Underground Portion
- Final PMR Route Above Ground Portion
- Final PMR Route Milepost
- Existing Substation (69/12kV)
- Water Bodies

Wildfire Containment Conflict Model

- Low
- Moderate
- High
- Very High

Jurisdictional Land Ownership

- Freshed Boundaries
- Bureau of Land Management
- Department of Defense
- National Parks Service
- State Land
- State Park
- U.S. Fish & Wildlife
- U.S. Forest Service
- Rural Interstate
- San Diego County Road
- Urban Freeway or Expressway
- Urban Interstate

0 3.5 7 Miles

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Sunrise Powerlink Project

**Final PMR Route - Overview
Wildfire Containment
Conflict Model**