



Kirstie Reynolds
Environmental Compliance Lead
San Diego Gas & Electric Company
1010 Tavern Road, SD 1116
Alpine, CA 91901
(T) XXX-XXX-XXXX
(C) XXX-XXX-XXXX
(F) XXX-XXX-XXXX

May 26, 2017

Lonn Maier
Project Manager
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Notice to Proceed (NTP) Request #5 to Conduct Geotechnical Investigations on the Circuit (C) 440 and C449 Components of the Cleveland National Forest Power Line Replacement Projects (Project)

Dear Ms. Orsaba:

On May 26, 2016, the California Public Utilities Commission (CPUC) granted San Diego Gas & Electric Company (SDG&E) a Permit to Construct (PTC) the Project (Decision 16-05-038). The decision conditionally authorizes construction of the Project with the implementation of pre-construction mitigation measures (MMs) identified in the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP). A Notice of Determination was submitted to the State Clearinghouse on May 31, 2016, indicating the CPUC's approval of the Project. In addition, the following agencies issued permits and Records of Decision (RODs) to indicate their approval of the Project:

- The United States Forest Service (USFS) issued a Final ROD on March 11, 2016 and a Master Special Use Permit on September 19, 2016.
- The Bureau of Land Management issued a Final ROD on September 28, 2016.
- The Bureau of Indian Affairs issued a Final ROD on March 30, 2016.

Activity Summary

On April 12, 2016, the CPUC approved the request to conduct geotechnical investigations along C449, which included five geotechnical borings and six seismic surveys; however, the approved geotechnical investigations were not completed prior to the issuance of the PTC. To complete the final design for C440 and C449, SDG&E is proposing to conduct 23 geotechnical borings and 29 seismic surveys along C440, as well as five geotechnical borings and 24 seismic surveys along C449. Geotechnical investigations on C440 will occur primarily along Phase I of C440, which includes the underground alignment from Interstate 8 and Sunrise Highway to Morris Ranch Road and Sunrise Highway, as well as along the rebuilt overhead portion from Glenclyff Substation to Pole P40009. Additional geotechnical investigations may be required at a later date for subsequent phases of C440. SDG&E is formally requesting authorization from the

CPUC to conduct geotechnical investigations on the C440 and C449 components of the Project to complete the final engineering design.

Attachment A: NTP #5 Components Map depicts the locations of the seismic lines and geotechnical borings for each component. These geotechnical investigations are being conducted in accordance with MM PHS-07 of the Project's MMCRP in order to complete the pre-construction requirement for the reconstruction of C440 and C449.

The geotechnical investigations will be performed within existing disturbed areas and along existing roadways, such as Sunrise Highway and other roads within the area. Public roads and other existing access roads will provide access to the geotechnical sites. All geotechnical investigation sites will be micro-sited in the field to ensure no impacts to sensitive resources and vegetation will occur. Traffic control signage and other devices will be employed as required by San Diego County-approved traffic control plans to ensure the safety of workers and motorists when working in or adjacent to the public roads. Geotechnical investigations along both components are anticipated to take approximately two months, beginning in June 2017 and ending in July/August 2017.

Geotechnical Borings

A total of 23 geotechnical borings are proposed along C440 and five are proposed along C449. Geotechnical borings consist of drilling a six- to eight-inch-diameter hole using a hollow-stem auger attached to a drill rig. The borings will have varying depths, depending on subsurface conditions, but will generally not exceed 20 feet. Upon completion of the borings, the holes will be backfilled.

The borings will be completed using a standard-sized pickup truck and either a rubber-tired, truck-mounted drill rig or a rubber-tracked, limited-access drill rig. A small pickup truck or a similar vehicle will also be on site for the environmental and cultural monitors. During drilling, there will likely be three to five workers on site, including a driller, a driller's assistant, an engineer or geologist, and biological and cultural monitors as needed. The total work area required to complete the borings will measure approximately 15 feet wide by 40 feet long. Each boring will take three to four hours to complete, depending on subsurface conditions.

Seismic Surveys

A total of 29 seismic refraction surveys are proposed along C440 and 24 are proposed along C449. Seismic refraction surveys consist of linearly arranging a series of P-wave geophones along the ground surface in the area to be investigated. A wave source is generated by striking a sledgehammer against a small metal plate at one end of the geophones. Wave data are then recorded by the geophones along the alignment, and a subsurface profile is generated. Seismic surveys require very little disturbance to the ground surface, and sites will generally be left in the same condition as previously encountered.

A small pickup truck or similar vehicle will be used to access seismic survey locations; however, this vehicle will remain on previously disturbed roads or will be parked on nearby access roads, and equipment will be walked into the sites. There will likely be two to three personnel on site

during the surveys, plus biological and cultural monitors as needed. Each seismic survey will take two to three hours to complete, depending on site conditions.

Pre-Construction Mitigation Measures

A list of all of the pre-construction MMs identified in the MMCRP that are relevant to geotechnical investigations is provided in Attachment B: Pre-Construction Status Report of this NTP request. To facilitate tracking and implementation, each MM has been organized into tasks so that the various elements of each MM can be tracked separately. Attachment B: Pre-Construction Status Report provides the full text of the MMs for each component, as well as their corresponding completion status and descriptive details on the status.

SDG&E respectfully requests authorization of this NTP request by June 16, 2017, to finalize engineering design along C440 and C449 and meet the overall Project schedule. Should you have any questions or need additional information, please do not hesitate to contact me at XXX-XXX-XXXX.

Sincerely,



Kirstie Reynolds
Environmental Compliance Lead
SDG&E

Attachment A: NTP #5 Components Map
Attachment B: Pre-Construction Status Report

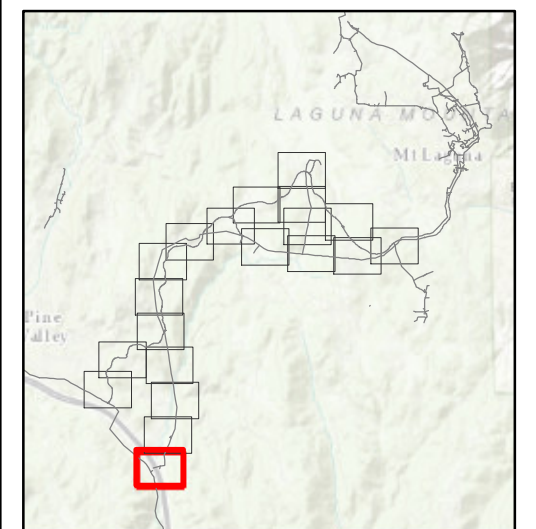
cc: Lisa Orsaba, CPUC
Allison Rice, Dudek
Anna Bischoff, Dudek
Brad Aughinbaugh, USFS
KD Tyree, USFS
Tim Knowd, SDG&E
Edith Moreno, SDG&E
Jennifer Kaminsky, SDG&E
Rachel Ruston, SDG&E
Heidi Waitley, SDG&E
Jim Vanlandingham, SDG&E
Anne Marie McGraw, Insignia Environmental (Insignia)
Fred Bauermeister, Insignia
Jeff Coward, Insignia
Erin Tomaras, Insignia

ATTACHMENT A: NTP #5 COMPONENTS MAP

**Attachment A:
Components Map
C440 Geotech Map 1 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

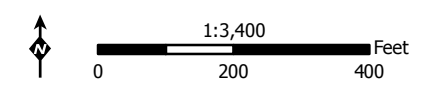
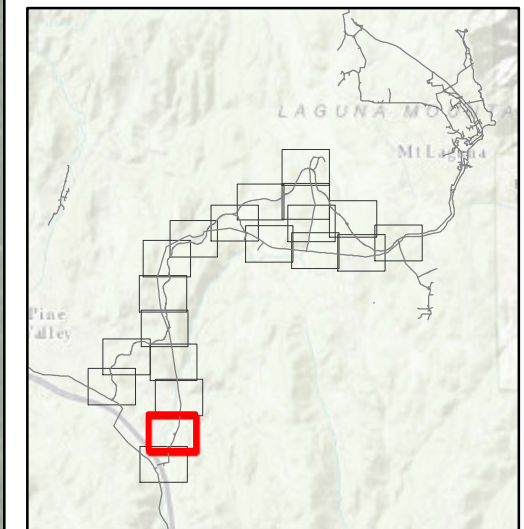
- S Seismic Line
- Other
- S Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 2 of 20**

**Cleveland National Forest
Power Line Replacement Projects**




- S Seismic Line
- Other
- N New Steel Pole
- R Removal
- S Wood-to-Steel Replacement
- Removal
- Wood-to-Steel Replacement
- United States Forest Service

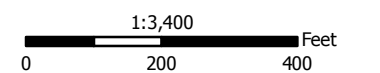
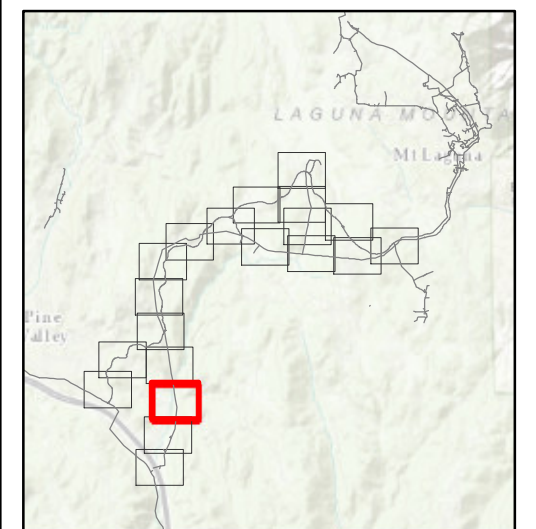


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**Attachment A:
Components Map
C440 Geotech Map 3 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

-  Removal
-  Removal
-  United States Forest Service




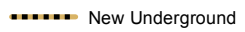




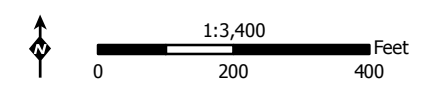
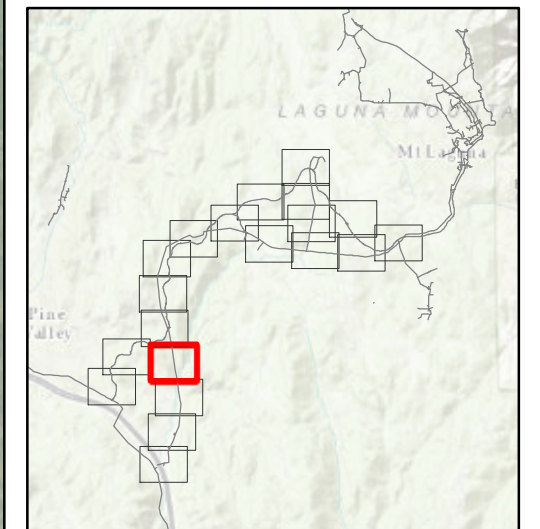
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Attachment A: Components Map C440 Geotech Map 4 of 20

Cleveland National Forest Power Line Replacement Projects

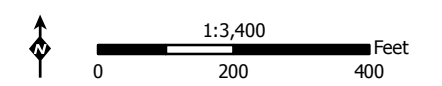
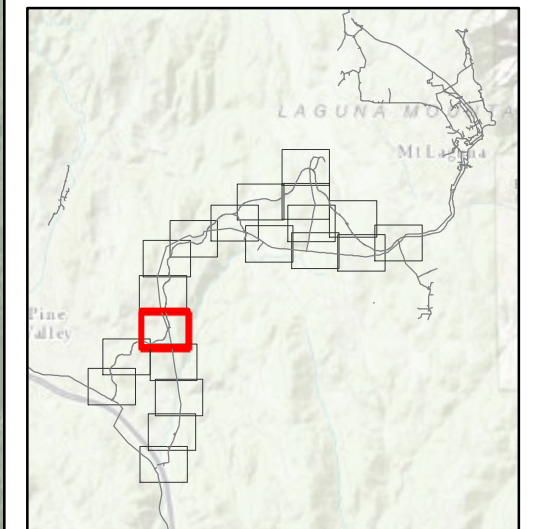
-  Boring
-  Seismic Line
-  Removal
-  New Underground
-  Removal
-  United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 5 of 20**

**Cleveland National Forest
Power Line Replacement Projects**




- Ⓟ Boring
- Ⓢ Seismic Line
- Other
- Ⓡ Removal
- New Underground
- Removal
- United States Forest Service




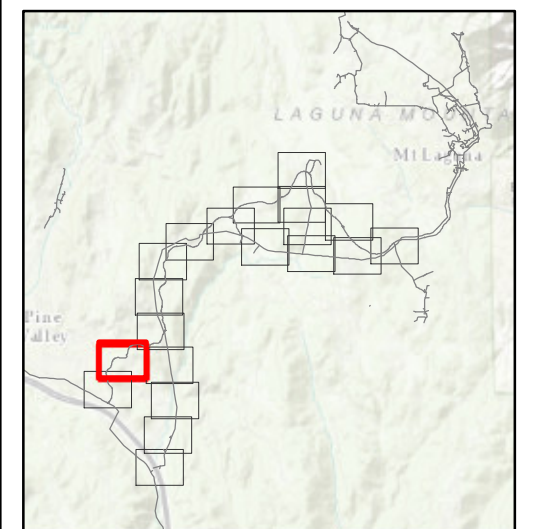
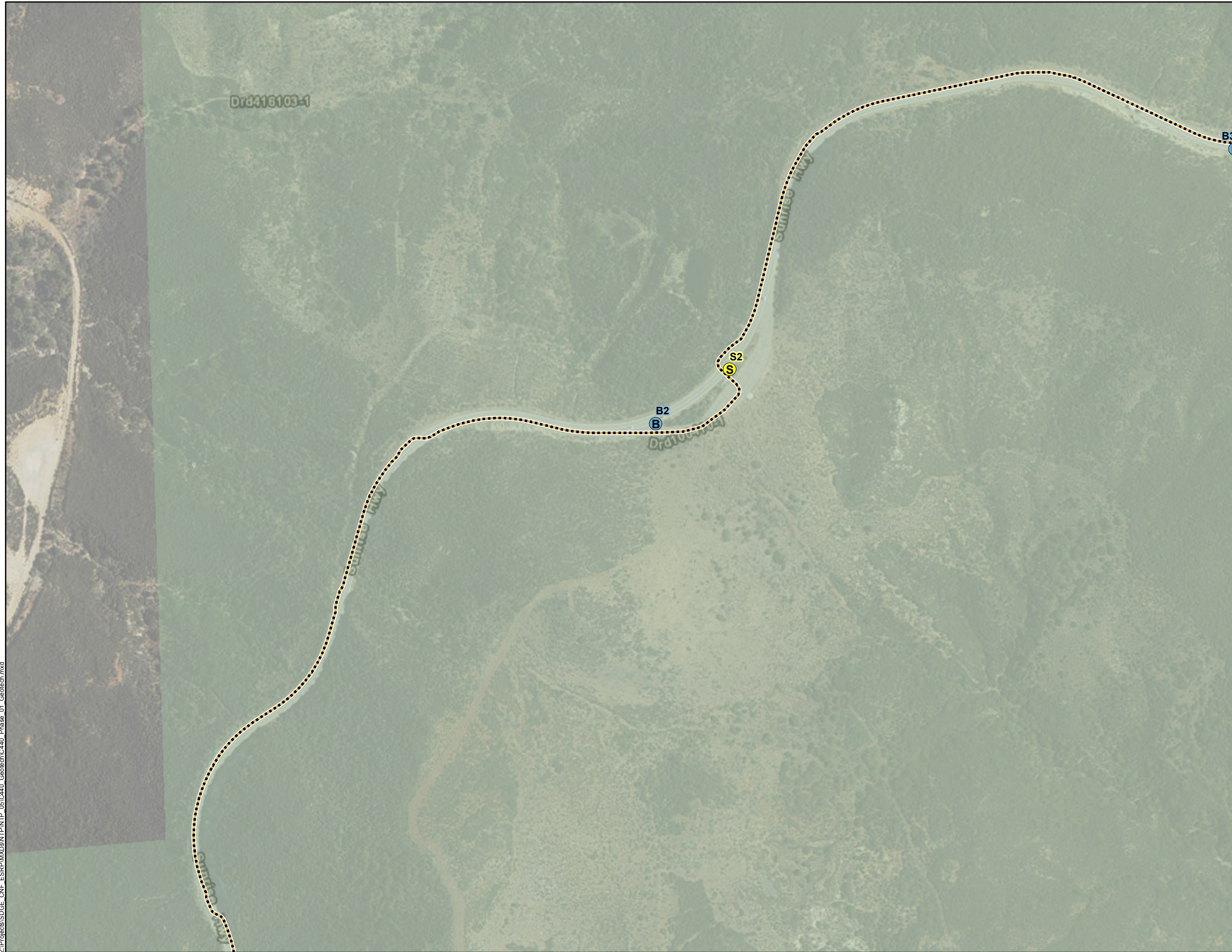
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**Attachment A:
Components Map
C440 Geotech Map 6 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

-  Boring
-  Seismic Line
-  New Underground





 United States Forest Service




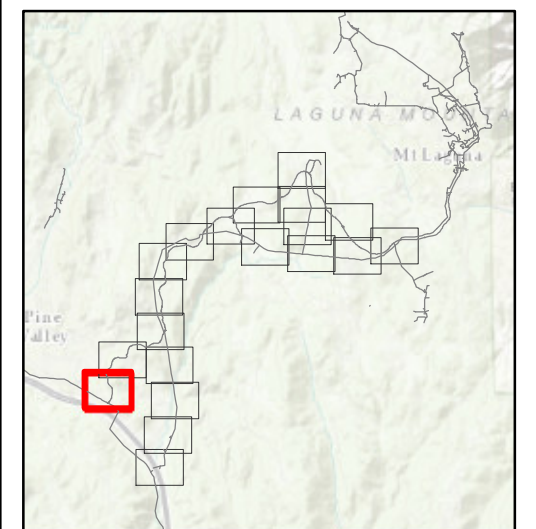
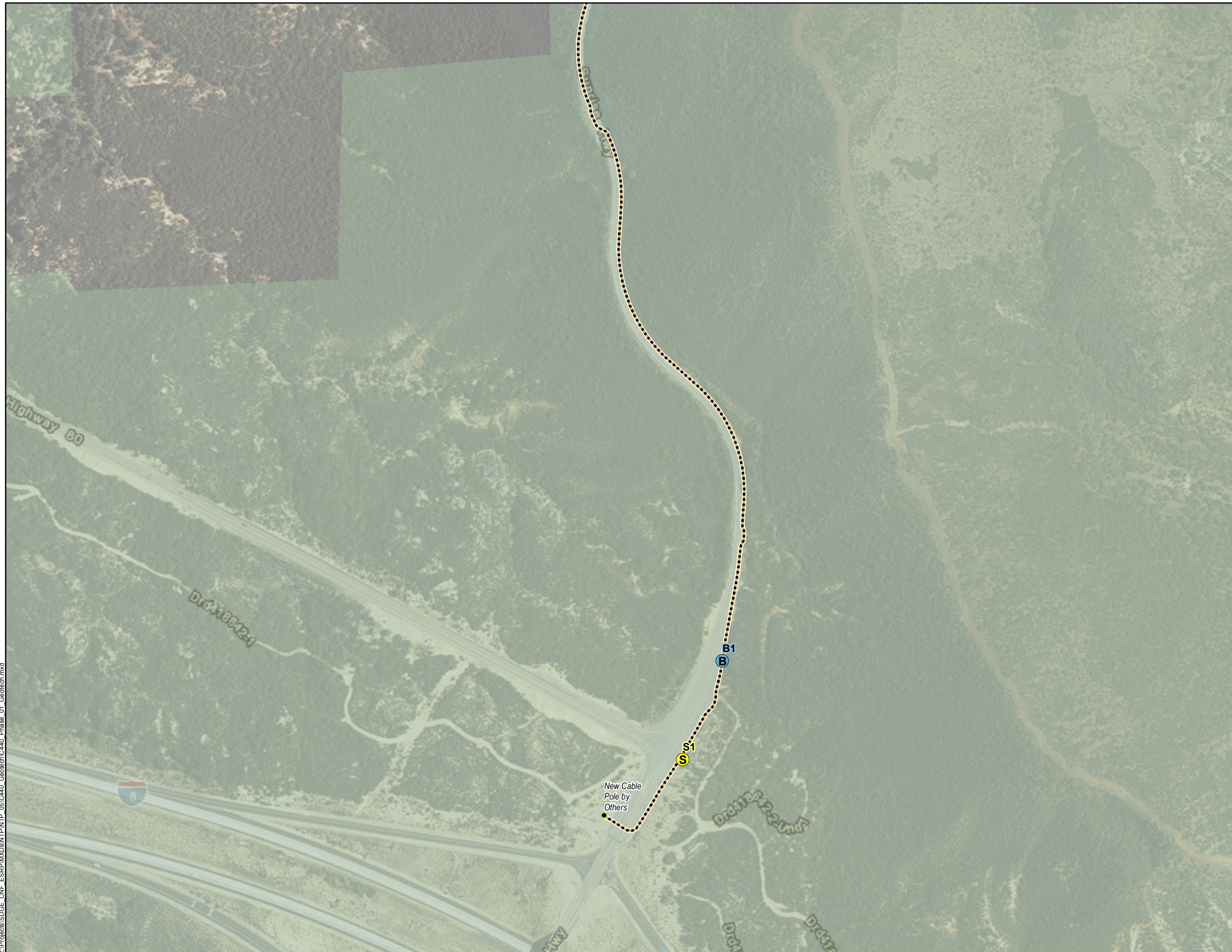
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**Attachment A:
Components Map
C440 Geotech Map 7 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

-  Boring
-  Seismic Line
-  Other
-  New Underground





 United States Forest Service

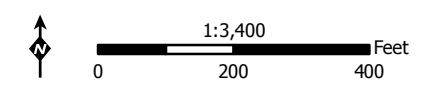
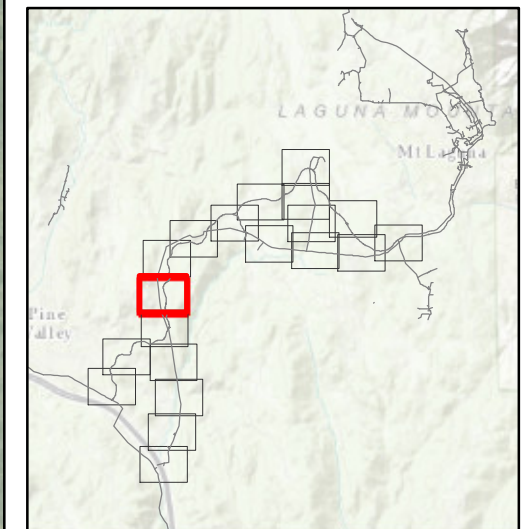


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**Attachment A:
Components Map
C440 Geotech Map 8 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

-  Removal
-  New Underground
-  Removal
-  United States Forest Service

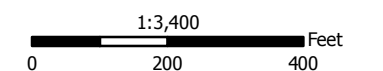
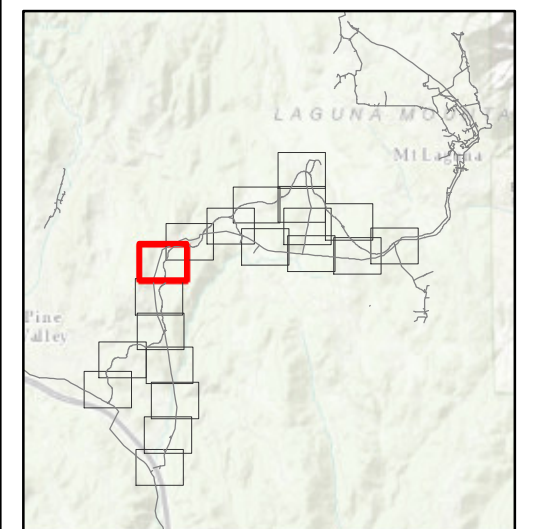
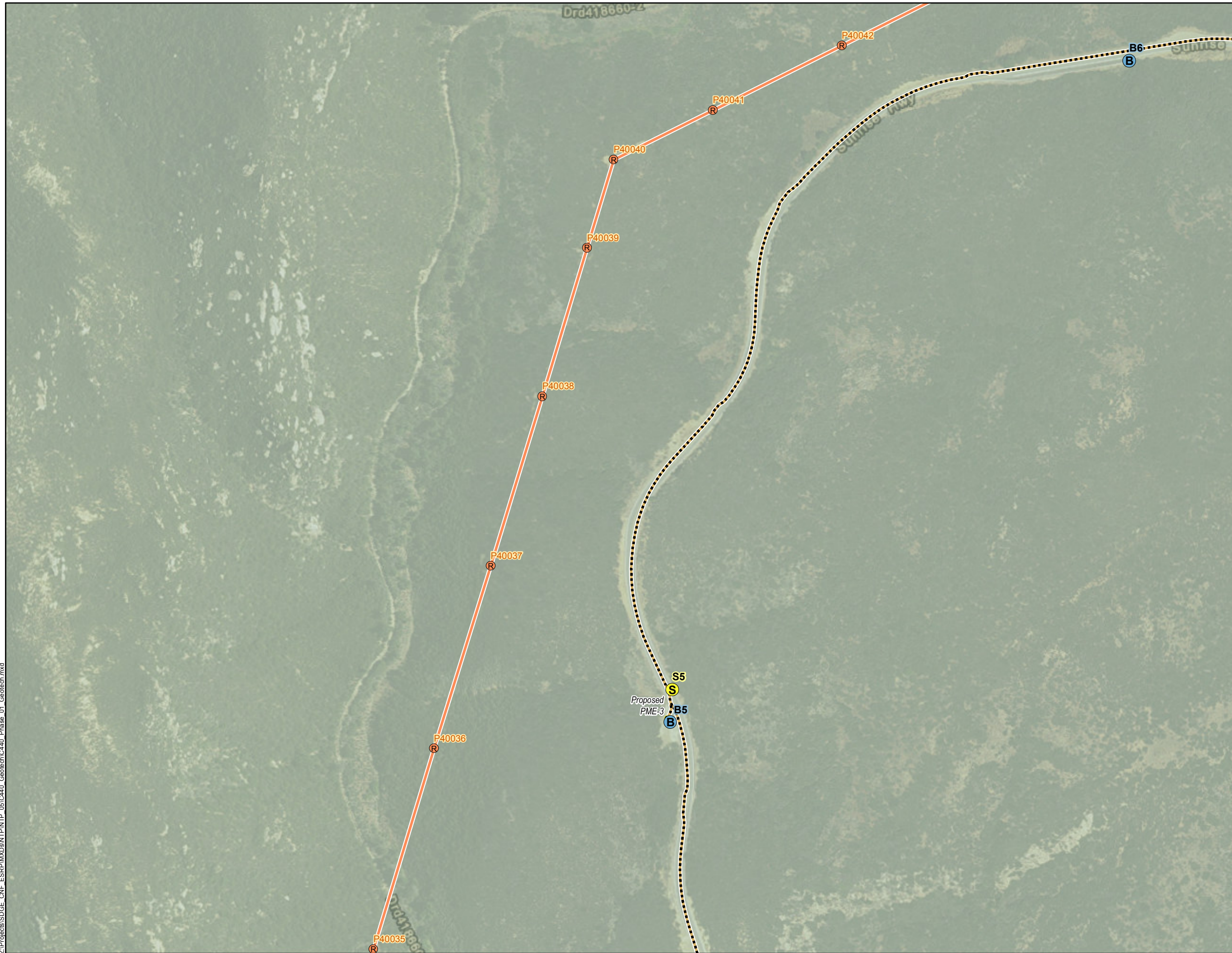


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Attachment A: Components Map C440 Geotech Map 9 of 20

Cleveland National Forest Power Line Replacement Projects

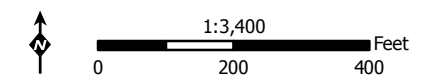
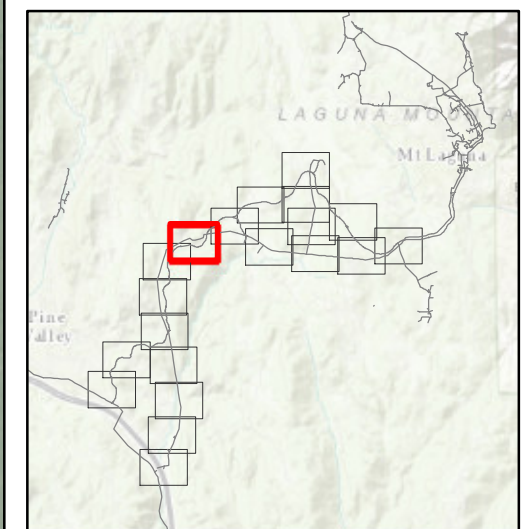
- B Boring
- S Seismic Line
- Other
- R Removal
- New Underground
- Removal
- United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 10 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

- Ⓟ Boring
- Ⓢ Seismic Line
- Ⓡ Removal
- New Underground
- Removal
- United States Forest Service

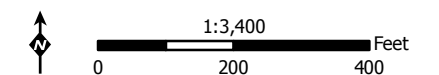
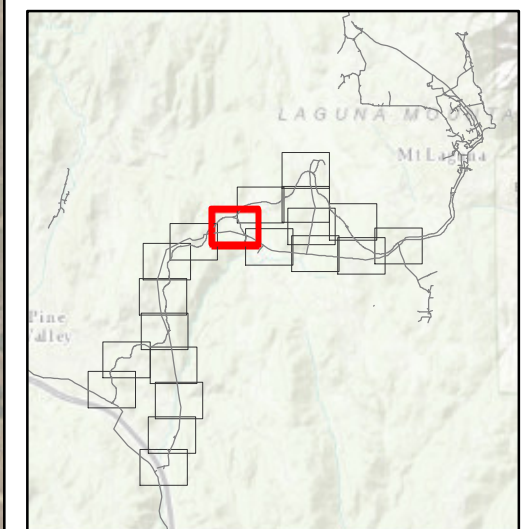


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**Attachment A:
Components Map
C440 Geotech Map 11 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

- Ⓟ Boring
- Ⓢ Seismic Line
- Other
- Ⓝ New Steel Pole
- Ⓡ Removal
- Ⓢ Wood-to-Steel Replacement
- New Overhead
- New Underground
- Removal
- Wood-to-Steel Replacement
- United States Forest Service



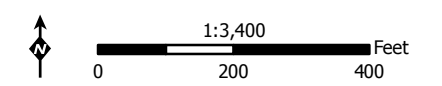
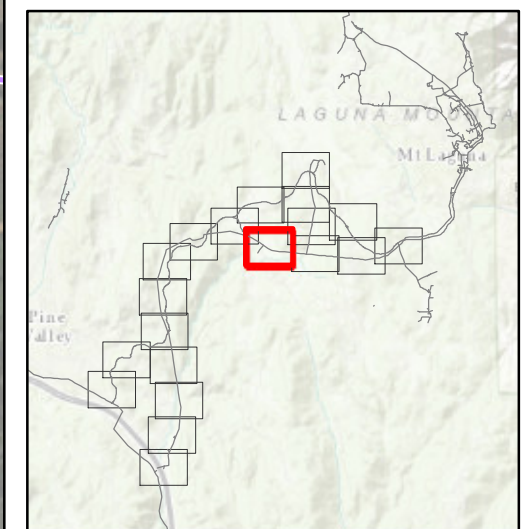
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**Attachment A:
Components Map
C440 Geotech Map 12 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

- Ⓢ Seismic Line
- Other
- Ⓝ New Steel Pole
- Ⓢ Wood-to-Steel Replacement
- New Overhead
- - - New Underground
- Removal
- Wood-to-Steel Replacement

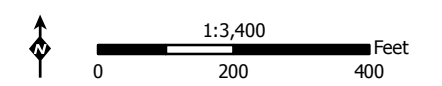
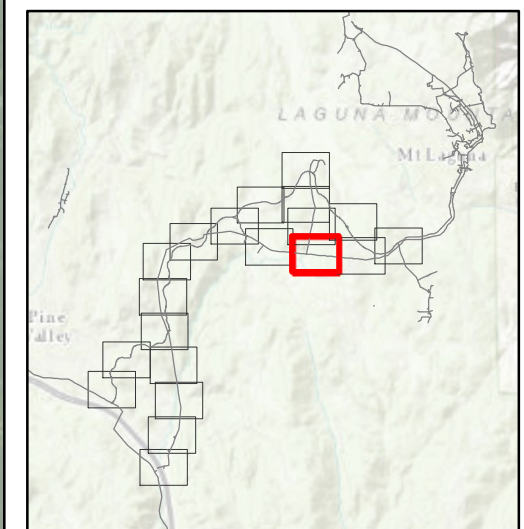
- United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 13 of 20**






**Cleveland National Forest
Power Line Replacement Projects**

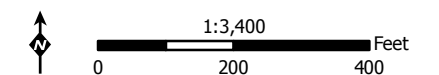
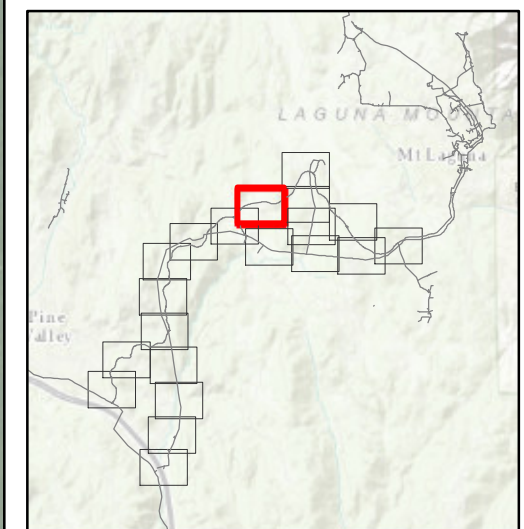
- S Seismic Line
- Other
- R Removal
- S Wood-to-Steel Replacement
- Removal
- Wood-to-Steel Replacement
- United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 14 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

-  Boring
-  Seismic Line
-  Other
-  New Underground
-  United States Forest Service

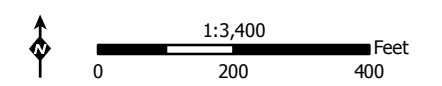
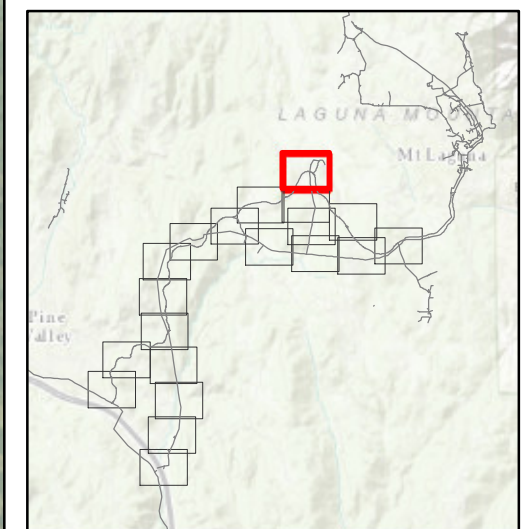


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**Attachment A:
Components Map
C440 Geotech Map 15 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

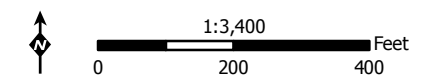
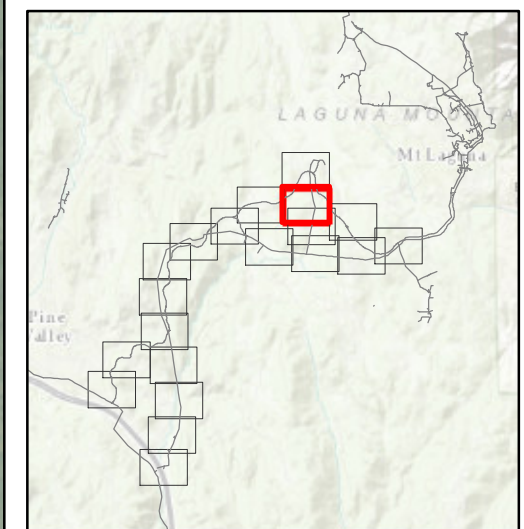
- B Boring
- S Seismic Line
- Other
- R Removal
- Existing Underground
- New Underground
- Removal
- Underground Removal
- United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 16 of 20**

**Cleveland National Forest
Power Line Replacement Projects**







- Ⓟ Boring
- Ⓢ Seismic Line
- Ⓡ Removal
- New Underground
- Removal
- United States Forest Service

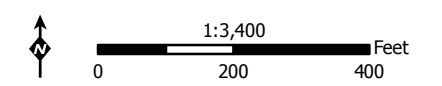
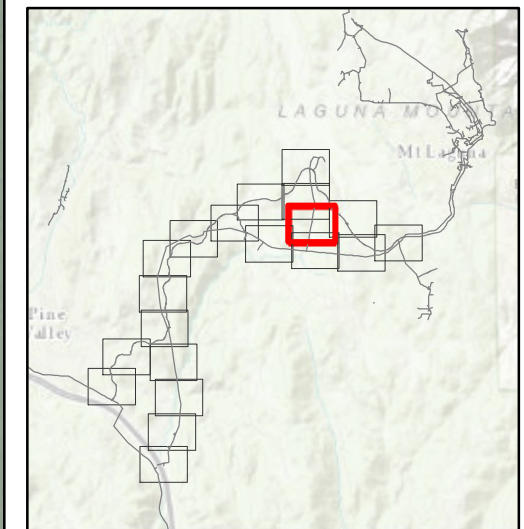


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Attachment A: Components Map C440 Geotech Map 17 of 20



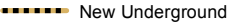

Cleveland National Forest Power Line Replacement Projects

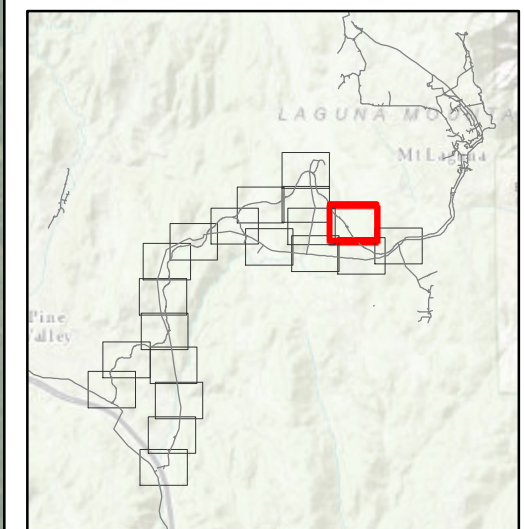
-  Boring
-  Seismic Line
-  Removal
-  New Underground
-  Removal
-  United States Forest Service



**Attachment A:
Components Map
C440 Geotech Map 18 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

-  Boring
-  Seismic Line
-  New Underground
-  United States Forest Service

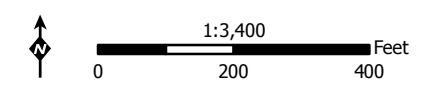
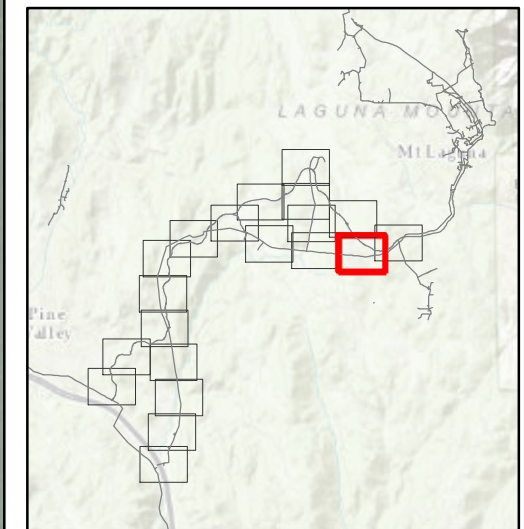


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**Attachment A:
Components Map
C440 Geotech Map 19 of 20**

**Cleveland National Forest
Power Line Replacement Projects**

- Ⓟ Boring
- Ⓢ Seismic Line
- Other
- Ⓡ Removal
- New Underground
- Removal
- United States Forest Service

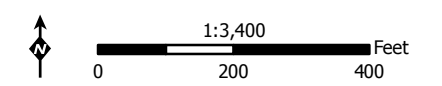
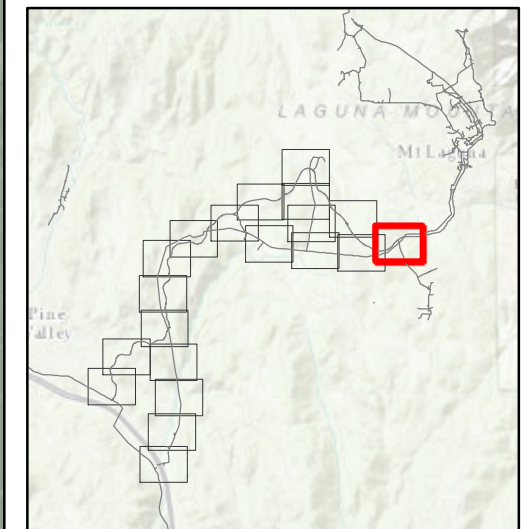


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**Attachment A:
Components Map
C440 Geotech Map 20 of 20**

**Cleveland National Forest
Power Line Replacement Projects**




- Ⓟ Boring
- Ⓢ Seismic Line
- Other
- Ⓡ Removal
- Ⓢ Wood-to-Steel Replacement
- New Overhead
- - - New Underground
- Removal
- Wood-to-Steel Replacement
- United States Forest Service

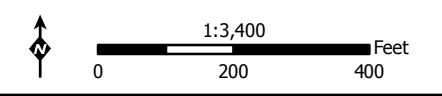
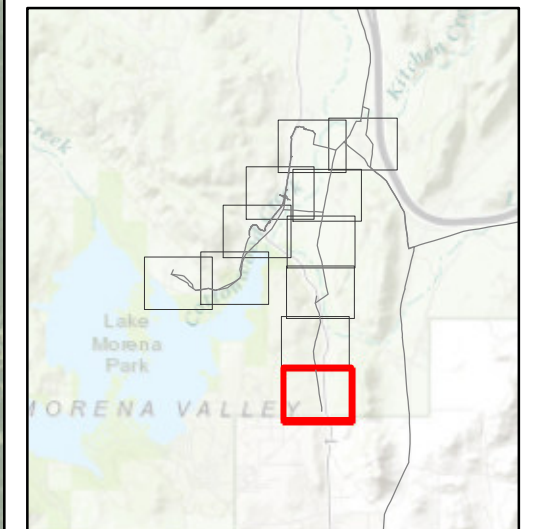


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**Attachment A:
Components Map
C449 Geotech Map 1 of 11**

**Cleveland National Forest
Power Line Replacement Projects**




-  Removal
-  Removal
-  United States Forest Service

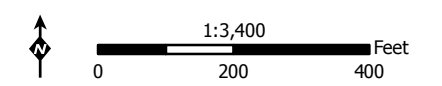
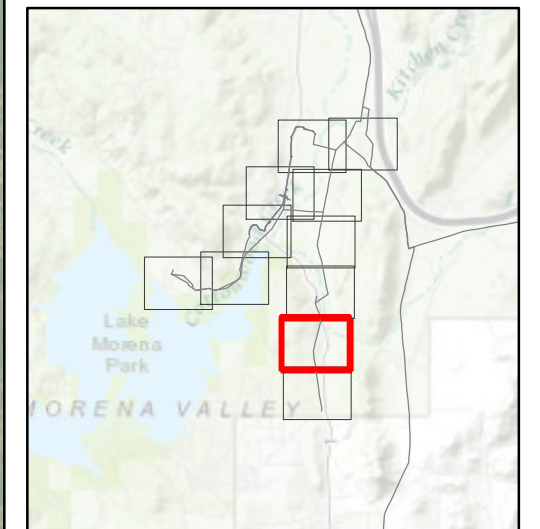


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**Attachment A:
Components Map
C449 Geotech Map 2 of 11**




**Cleveland National Forest
Power Line Replacement Projects**

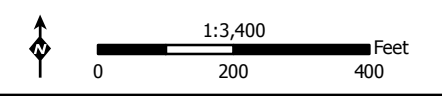
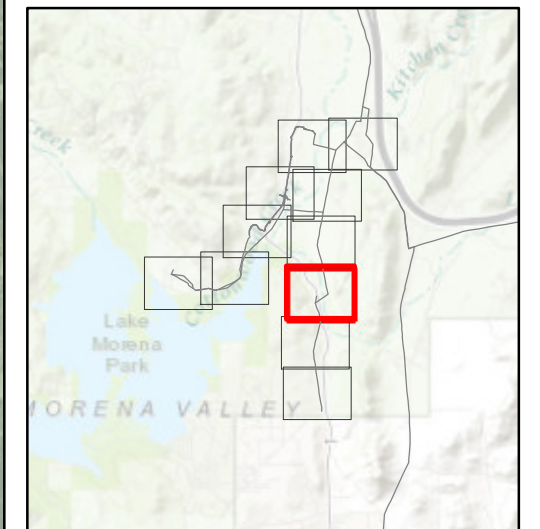
-  Removal
-  Removal
-  United States Forest Service



**Attachment A:
Components Map
C449 Geotech Map 3 of 11**

**Cleveland National Forest
Power Line Replacement Projects**




-  Removal
-  Removal
-  United States Forest Service

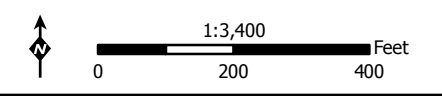
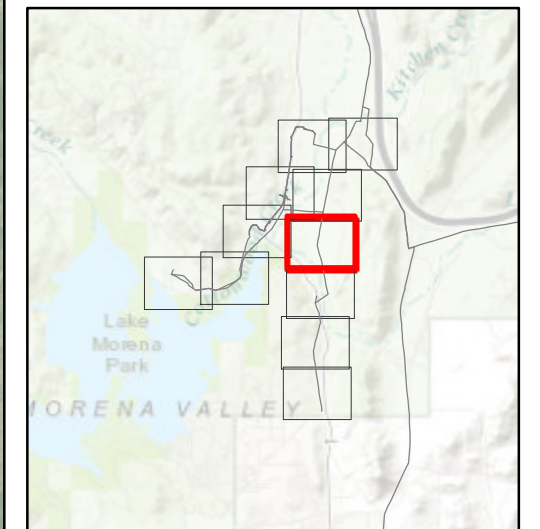


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**Attachment A:
Components Map
C449 Geotech Map 4 of 11**

**Cleveland National Forest
Power Line Replacement Projects**




-  Removal
-  Removal
-  United States Forest Service

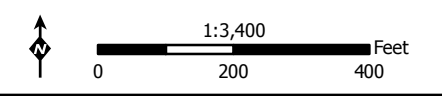
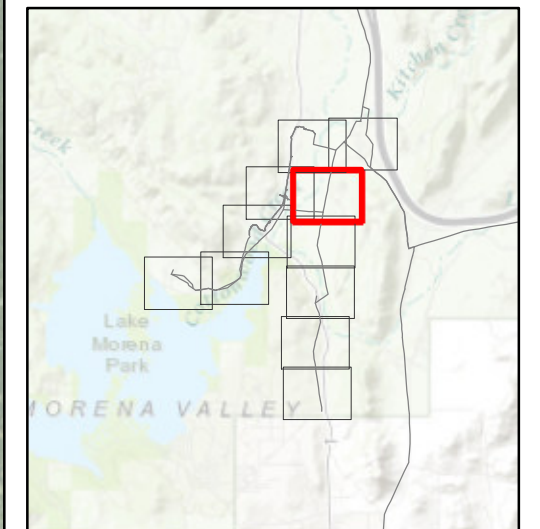


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**Attachment A:
Components Map
C449 Geotech Map 5 of 11**

**Cleveland National Forest
Power Line Replacement Projects**









-  Removal
-  Removal
-  United States Forest Service

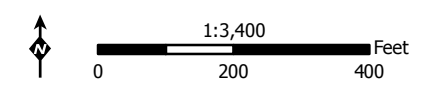
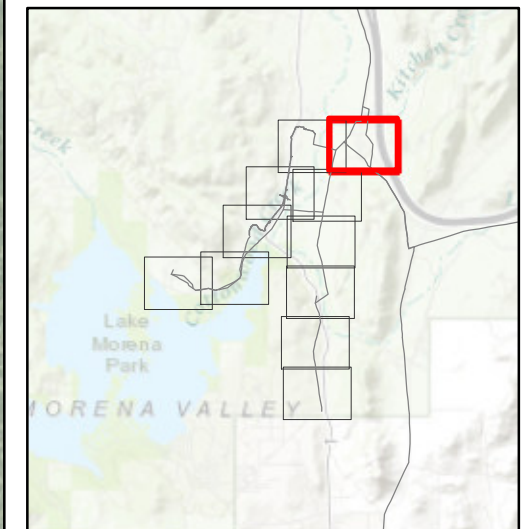
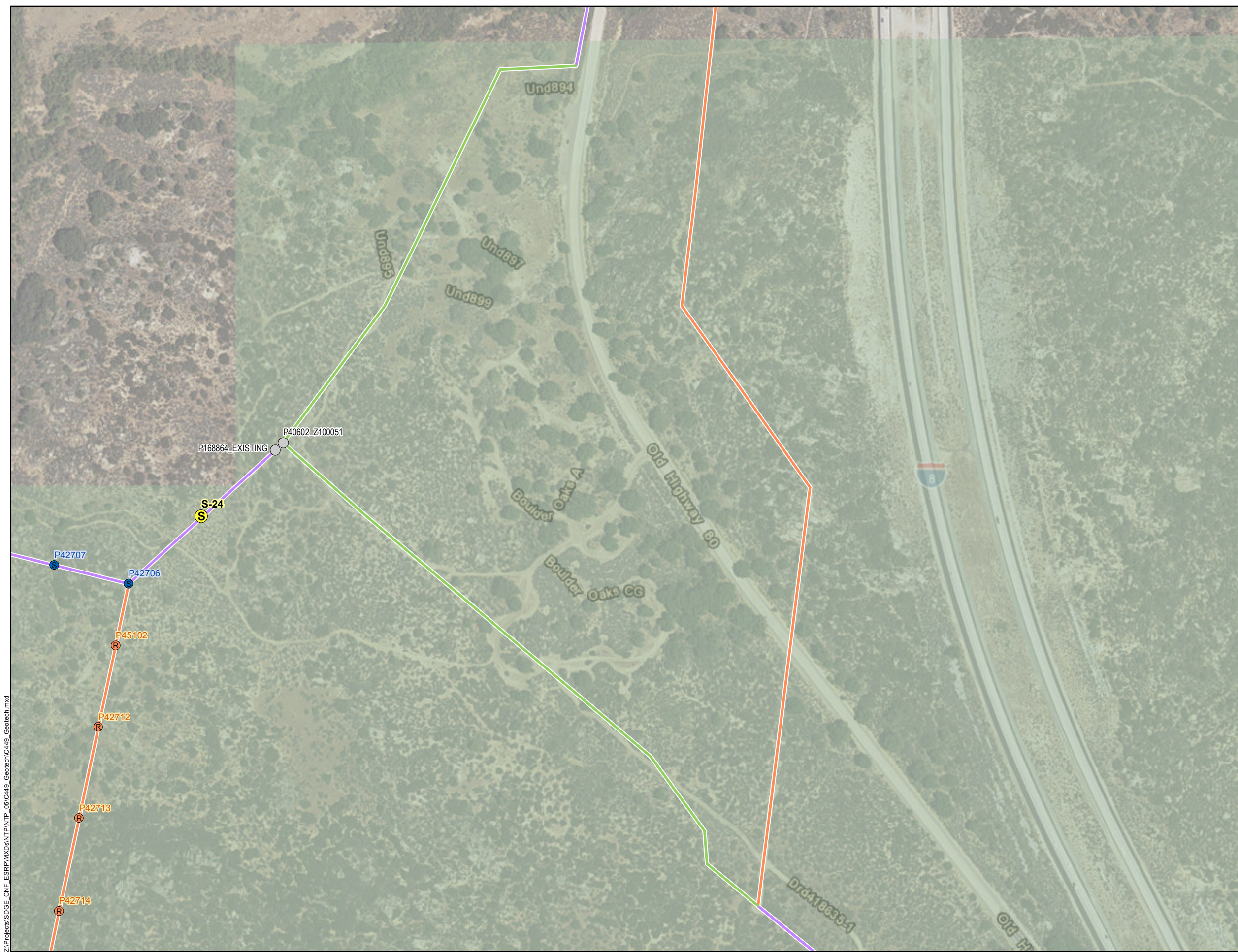


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**Attachment A:
Components Map
C449 Geotech Map 6 of 11**

**Cleveland National Forest
Power Line Replacement Projects**

-  Seismic Line
-  Pole Top Work Only
-  Removal
-  Wood-to-Steel Replacement 12kV Only
-  New Overhead
-  Removal
-  Wood-to-Steel Replacement
-  United States Forest Service

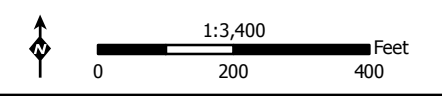
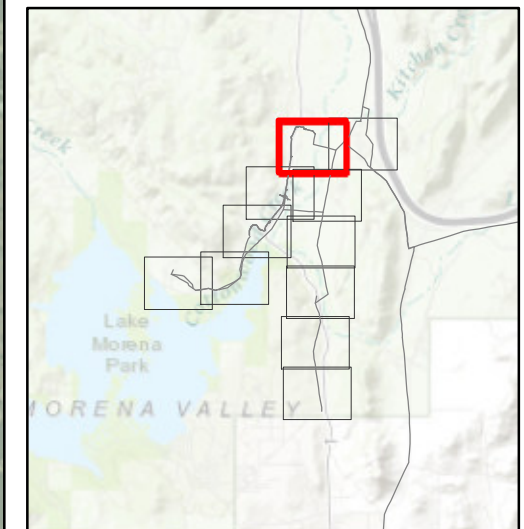


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**Attachment A:
Components Map
C449 Geotech Map 7 of 11**

**Cleveland National Forest
Power Line Replacement Projects**

- B Boring
- S Seismic Line
- N New Steel Pole
- Pole Top Work Only
- R Removal
- Wood-to-Steel Replacement 12kV Only
- New Overhead
- - - New Underground
- Removal
- Wood-to-Steel Replacement
- United States Forest Service

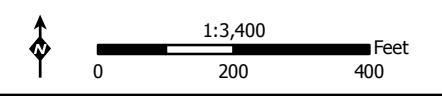
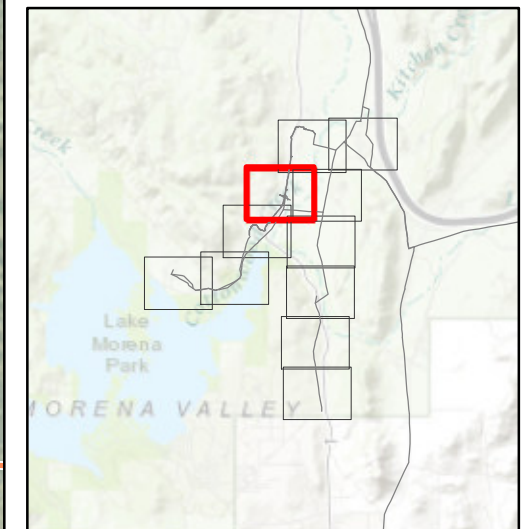


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**Attachment A:
Components Map
C449 Geotech Map 8 of 11**

**Cleveland National Forest
Power Line Replacement Projects**

- B Boring
- S Seismic Line
- R Removal
- New Underground
- Removal
- United States Forest Service

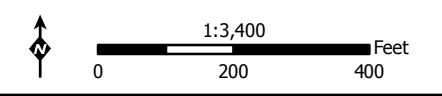
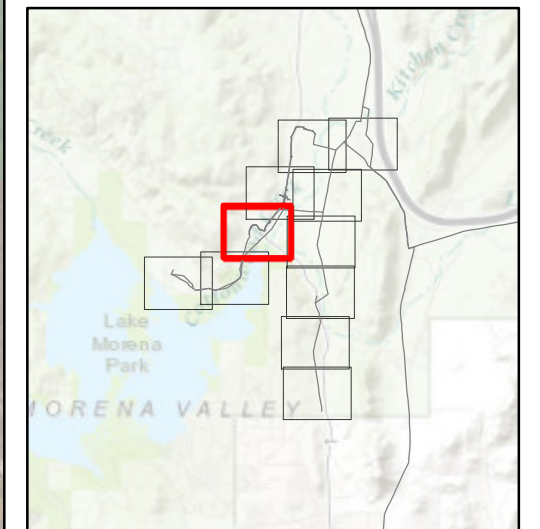


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**Attachment A:
Components Map
C449 Geotech Map 9 of 11**

**Cleveland National Forest
Power Line Replacement Projects**

- B Boring
- S Seismic Line
- N New Steel Pole
- R Removal
- New Overhead
- - - New Underground
- Removal
- United States Forest Service

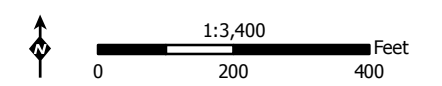


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**Attachment A:
Components Map
C449 Geotech Map 10 of 11**

**Cleveland National Forest
Power Line Replacement Projects**

- S Seismic Line
- N New Steel Pole
- R Removal
- S Wood-to-Steel Replacement 12kV Only
- New Overhead
- Removal
- Wood-to-Steel Replacement
- United States Forest Service

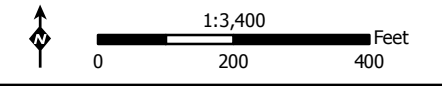
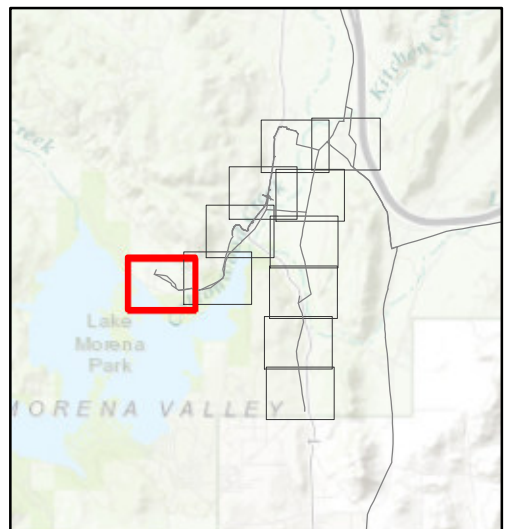


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**Attachment A:
Components Map
C449 Geotech Map 11 of 11**

**Cleveland National Forest
Power Line Replacement Projects**

- S Seismic Line
- N New Steel Pole
- R Removal
- S Wood-to-Steel Replacement 12kV Only
- New Overhead
- Removal
- Wood-to-Steel Replacement
- United States Forest Service



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ATTACHMENT B: PRE-CONSTRUCTION STATUS REPORT

Attachment B: Pre-Construction Status Report

- To Be Implemented During Construction
- Pending OR To Be Implemented Immediately Prior to Construction
- To Be Implemented Following Construction
- Complete
- Not Applicable

Report Criteria:

SOURCE: MMCRP

TIMING: Design; Design and During; Design and Post; Pre; Pre and During; Pre and Post; Pre, During, and Post

LOCATION: Geotech C440 Phase 1; Geotech C449

Location: Geotech C440 Phase 1

Measure Category	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Visual	VIS-01	01	Scenery Conservation Plan	SDG&E shall file with the CPUC a Scenery Conservation Plan that is approved by the Forest Service and provided to other applicable jurisdictional agencies for review and comment. Each 69 kV power line or 12 kV distribution line segment will be covered under an individual section of the plan, and each section will be reviewed and approved by the appropriate agencies prior to any ground-disturbing activities for the specific segment. The purpose of this plan is to identify and implement specific actions that will minimize the project's visual disturbance to the naturally established scenery. Specific actions shall also be identified and implemented for individual poles to protect existing views from established scenic vistas and roadways located outside of the CNF. Power and distribution line support towers shall be designed to minimize their visual prominence and contrast to the natural landscape. Individual poles anticipated to create adverse effects to scenic vistas and/or particularly noticeable visual contrast in existing views shall be designed, located, shaped, textured, and/or screened as necessary to minimize their visual contrast, blend and complement the adjacent forest and community character. Methods such as limiting the number of climbing pegs and identifying less visually intrusive pole markings for high voltage lines, consistent with CPUC requirements, shall be considered. SDG&E shall also be required to provide photorealistic visual simulations of typical proposed designs that include design features that may be incorporated into poles identified for visual treatment to demonstrate the effectiveness of such features in reducing visual contrast and prominence as viewed from sensitive viewsheds.	Pole replacement will not occur during the geotechnical investigations (i.e., geotechnical borings and seismic surveys) along this component; therefore, this measure is not applicable.	Pre and During	N/A
Visual	VIS-02	01	CNF Land Management Plan Amendment	If the Forest Service selects to fire harden TL626, TL629, TL6923 or C157 or relocate TL626 (Options 1,2,3a,3b,4 and 5, it would have to approve a project-specific CNF Land Management Plan Amendment contemporaneously with the decision to authorize the MSUP and pole replacement project. The project-specific plan amendment would amend the Land Management Plan to allow project-specific exemptions for inconsistencies with the CNF Land Management Plan scenic integrity objectives.	C440 was not identified in the Final EIR/EIS or ROD as conflicting with the Scenic Integrity Objectives established in the 2005 Land Management Plan or the 2014 Land Management Amendment for the CNF; therefore, this measure is not applicable.	Pre	N/A
Visual	VIS-02	02	CNF Land Management Plan Amendment	SDG&E would be required to compensate the Forest Service for the loss in scenic quality associated with the negative scenery effects that are inconsistent with the LMP scenic integrity objectives. Compensation shall be accomplished through agency approved scenery restoration activities, fee-payment for scenery restoration projects, or preservation of comparable lands.	C440 was not identified in the Final EIR/EIS or ROD as conflicting with the Scenic Integrity Objectives established in the 2005 Land Management Plan or the 2014 Land Management Amendment for the CNF; therefore, this measure is not applicable.	Pre	N/A
Biological Resources	APM-BIO-02	01	Plant and Wildlife Surveys	All work areas will be surveyed for special-status plant and wildlife species by a qualified biologist prior to the commencement of construction in accordance with SDG&E's pre-activity survey report requirements.	A Pre-Activity Study Report is not required, per SDG&E's Subregional NCCP protocols, because all geotechnical investigations will occur along access roads or previously disturbed areas. Nonetheless, a CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	APM-BIO-05	01	Stringing Sites	Stringing site locations are designed with a preference toward placement within roadways, where possible, to minimize additional potential impacts from grading and vegetation removal that may otherwise be required if these stringing sites were required to be located in vegetated, off-road areas.	No stringing sites are required for the geotechnical investigations along this component; therefore, this measure is not applicable.	Design	N/A
Biological Resources	APM-BIO-06	01	Implement NCCP in Laguna Mountains Skipper Habitat	Although Laguna Mountains Skipper is not covered under SDG&E's Natural Community Conservation Plan (NCCP), SDG&E will utilize NCCP protocols 1, 2, 3, 5, 7, 8, 10, 11, 13, 14, 17, 24, 25, 29, 34, 35, 41, 44, 48, 54, 55, and 57 in United States (U.S.) Forest Service- (Forest Service-) modeled critical habitat and occupied habitat to minimize any potential impacts to this species. In addition, SDG&E will have a qualified biologist survey any Laguna Mountains Skipper habitat prior to work.	Geotechnical investigations will not impact Laguna Mountains skipper habitat due to micro-siting of the work areas in existing disturbed areas and access roads; all Laguna Mountains skipper host plants will be avoided. A CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	To Be Implemented During Construction
Biological Resources	APM-BIO-07	01	CA Spotted Owl Consultation	If California spotted owls are identified in the vicinity of proposed work areas during the pre-activity survey process, SDG&E will consult with the appropriate resource agencies to avoid impacts to nesting California spotted owl.	No California spotted owls were identified near C440 during 2010 pre-activity surveys. SDG&E, in consultation with the appropriate resource agencies, developed the Project's NBMP, which will be implemented before and during construction activities in order to avoid impacts to nesting California spotted owls.	Pre	To Be Implemented During Construction
Biological Resources	APM-BIO-08	01	Design New Poles with Avian Protection Practices	SDG&E will design and install all new poles to conform to the guidelines in the Suggested Practices for Avian Protection on Power Lines Manual developed by the Avian Power Line Interaction Committee.	No new poles are being designed as part of the geotechnical investigations for this component; therefore, this measure is not applicable.	Design and During	N/A
Biological Resources	APM-BIO-09	01	Bat Roost Coordination	If active bat roosts are identified during pre-activity surveys, SDG&E will coordinate with the U.S. Fish and Wildlife Service/California Department of Fish and Wildlife as appropriate.	Prior to commencing the geotechnical investigations, a qualified biologist will survey for active bat roosts. In the event that an active bat roost is identified in the vicinity of the proposed geotechnical investigation site, SDG&E will consult with the USFWS and CDFW.	Pre	Pending
Biological Resources	BIO-01	01	Work Limits	Confine all construction and construction-related activities to the minimum necessary area. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas identified in Section B, Project Description, Table B-7. The limits of approved work spaces (not including existing access roads) shall be delineated with stakes and/or flagging prior to beginning work in any area. In areas where SDG&E will not work within exclusive-use easements, SDG&E will post temporary signage along approved work limits, indicating that the area is an active construction/work zone and access is temporarily restricted. An environmental monitor shall complete weekly observations to ensure that all work is completed within the approved work limits, and in the event any work occurs beyond the approved limits, it shall be reported by SDG&E's compliance team in accordance with the Mitigation Monitoring, Compliance, and Reporting program (see Section H).	The approximate locations of the geotechnical investigations will be identified on a Sensitive Resources Map, which will be submitted to the CPUC and USFS on May 26, 2017.	Pre and During	Pending

Measure Category	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-02	01	Contractor Training	Conduct contractor training for all construction staff. Prior to construction, all developer, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to implement the mitigation measures and comply with environmental regulations, including plant and wildlife species avoidance, impact minimization, and best management practices. Sign-in sheets and hard hat decals shall be provided that document contractor training has been completed for construction personnel.	All personnel conducting geotechnical investigations will attend the required Worker Environmental Awareness Program training immediately prior to working on the Project and will receive a hard-hat decal to indicate that they have attended the training. Training sign-in sheets will be submitted with the Weekly Environmental Compliance Report during construction.	Pre and During	To Be Implemented Immediately Prior to Construction
Biological Resources	BIO-03	01	Biological Monitoring	Conduct biological construction monitoring. An authorized biological monitor must be present at the construction sites during all initial ground-disturbing and vegetation-removal activities in undeveloped areas (i.e., not roads or existing developed areas). The monitor shall survey the construction project footprint and surrounding areas for compliance with all environmental specifications. Weekly biological construction monitoring reports shall be prepared and submitted to the appropriate permitting and responsible agencies through the duration of the ground-disturbing and vegetation-removal construction phase. Monthly biological construction monitoring reports shall be prepared and submitted through the duration of project construction to document compliance with environmental requirements.	Biological monitors approved by the CPUC and the USFS will conduct monitoring during initial ground disturbance. Biological monitors that were identified as "Trainees Only" by the USFS will only conduct monitoring on private lands or under the supervision of a fully approved biologist on USFS-managed lands. Biological monitoring results will be included in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-04	01	Habitat Restoration	Restore all temporary construction areas pursuant to a Habitat Restoration Plan (HRP). All previously undisturbed temporary work areas not subject to long-term use or ongoing vegetation maintenance shall be revegetated with native species characteristic of the adjacent native vegetation communities in accordance with a Habitat Restoration Plan as described in SDG&E NCCP 7.2 Habitat Enhancement Measures. Restoration techniques may include the following: hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. The HRP shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. At the completion of project construction, all construction materials shall be completely removed from the site. Topsoil located in areas to be restored will be conserved and stockpiled during the excavation process for use in the restoration of sites requiring restoration. Wherever possible, vegetation will be left in place or mowed, and not grubbed, or the NCCP, to avoid excessive root damage and allow for natural regrowth following construction. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas does not meet success criteria per the HRP, the temporary impact shall be considered a permanent impact and compensated accordingly (see MM BIO-5). Specifically, the HRP will include the following sections: Introduction; Mitigation Measure Summary; Plan Objectives; Plan Implementation; Pre-Construction Documentation; Clearing and Grading; Cleanup; Seeding; Other Planting Methods- Schedule-Restoration; Seeding and Planting- Restoration Monitoring; Monitoring Success Criteria, and Remedial Measures; Reporting; Completion of Restoration Program- Reference. The HRP will be prepared by a habitat restoration specialist (approved by the CPUC and Forest Service) who will oversee implementation of the HRP. The HRP shall be submitted to the CPUC and the Forest Service for review and approval prior to implementation.	Geotechnical investigations along this component will occur within existing disturbed areas and access roads, and no impacts to vegetation or habitat will occur; therefore, this measure is not applicable.	Pre, During, and Post	N/A
Biological Resources	BIO-06	01	Fire Prevention	Implement fire prevention best management practices during construction and operation activities. Fire prevention best management practices shall be implemented during construction and operation of the project as specified by the Construction Fire Prevention/Protection Plan (to be developed as required under MM FF-1 and MM FF-2). The PALS system will be followed for any work on National Forest System lands.	The Construction Fire Prevention/Protection Plan was approved by the USFS on June 17, 2016 and the CPUC on July 29, 2016. An updated plan was submitted to the CPUC and USFS on September 30, 2016; however, approval was not required. Fire prevention BMPs will be implemented during the geotechnical investigations in accordance with the plan.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-07	01	SWPPP	Prepare and implement a Stormwater Pollution Prevention Plan. Prepare a Stormwater Pollution Prevention Plan pursuant to the specifications described in APM HYD-05 and MM HYD-1.	The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e., SWPPP preparation). The geotechnical investigations will result in approximately 0.8 acre of temporary ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion, and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre and During	N/A
Biological Resources	BIO-09	01	Pole Replacement with RCAs	SDG&E shall identify all proposed replacement pole locations within the vicinity of Riparian Conservation Areas (RCAs) to identify those poles and associated access roads that can be reasonably relocated outside these areas and consult with the Forest Service for authorization of their relocation and proposed placement. These Forest Service requirements will only apply to National Forest System lands.	Pole replacement will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-10	01	Limit Impacts to Jurisdictional Features	Limit temporary and permanent impacts to jurisdictional features to the minimum necessary. Formal jurisdictional delineation and permits are required prior to construction for all work areas located within or adjacent to jurisdictional wetlands and waters. The applicant shall obtain and implement the terms and conditions of agency permit(s) for unavoidable impacts to jurisdictional wetlands and waters. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas within the approved work limits and delineated with stakes and/or flagging that shall be maintained throughout the construction period. The project applicant shall obtain applicable permits and provide evidence of permit approval, which may include but not be limited to a Clean Water Act Section 404 Permit from the ACOE, a Clean Water Act Section 401 water quality certification from the RWQCB, and a Section 1602 Streambed Alteration Agreement with the California Department of Fish and Wildlife for impacts to jurisdictional features prior to project construction. These permits are anticipated to be approved under the MSUP. The terms and conditions of these authorizations shall be implemented.	Geotechnical investigations will not be conducted within jurisdictional features, and no permits will be obtained; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-10	02	Limit Impacts to Jurisdictional Features	In addition, prior to conducting work or establishing the final design of a selected transmission line alignment, a planning-level assessment of aquatic resources will be conducted to identify the environmentally preferred alternative. The assessment will include review of the National Hydrography Dataset, National Wetland Inventory, U.S. Geological Survey topographic maps, high-resolution digital photography, and necessary field checking. Once the environmentally preferred alternative is identified, a jurisdictional delineation will be conducted of the selected transmission line to ensure the final design is the Least Environmentally Damaging Practicable Alternative (LEDPA) and is in compliance with the Clean Water Act (CWA) Section 404(b)(1) Guidelines. The CWA Section 404 permit authorization will be obtained for any discharges into waters of the United States and the widths of access roads and construction of bridges over waters of the United States will be minimized to the extent feasible.	Geotechnical investigations will not be conducted within jurisdictional features, and no permits will be obtained; therefore, this measure is not applicable.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
Biological Resources	BIO-11	01	Habitat Creation, Enhancement, Preservation, or Restoration	Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands. Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination of habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation, enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications, and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, hand-seeding, imprinting, and soil and plant salvage (as discussed in SDG&E NCCP 7.2 Habitat Enhancement Measures). Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the appropriate agency, the temporary impact shall be considered a permanent impact and compensated accordingly. All habitat creation and restoration used as mitigation for the proposed project on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation for the proposed project on private lands shall include long-term management and legal protection assurances.	Geotechnical investigations will not be conducted within jurisdictional waters or wetlands; therefore, there will be no net loss of jurisdictional waters or wetlands and mitigation is not required.	Pre and During	N/A
Biological Resources	BIO-12	01	Drainage Crossing Requirements	Where drainage crossings are unavoidable, construct access roads at right angles to drainages. Unless not possible due to existing landforms or site constraints, access roads shall be built perpendicular to drainages to minimize the impacts to these resources and prevent impacts along the length of jurisdictional features.	No new access roads will be constructed for the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-13	01	Special Status Plant Surveys	Conduct preconstruction surveys for special status plants in areas not accessible during previous rare plant surveys. Prior to construction, San Diego Gas & Electric (SDG&E) shall retain a qualified biologist approved by the California Public Utilities Commission (CPUC) and Forest Service to conduct a focused rare plant survey on site during the time period when the previously described special-status plant species are detectable. Table D.4-123 in EIR/EIS describes the 40 blooming plant species that shall be surveyed, months they shall be surveyed (i.e., blooming periods), and the TL/circuits on which they occur. Cuyamaca cypress and tecate cypress can be surveyed anytime of the year. Surveys shall be conducted in areas not included during rare plant surveys (see Chambers Group Inc. 2012b, Table 2). Of the 40 species described, there is some potential for 8 of these species to occur in vernal pools, including California Orcutt grass*, Cuyamaca larkspur, long-spined spineflower, Orcutt's brodiaea*, San Diego goldenstar*, San Diego thornmint*, Santa Lucia dwarf rush, and variegated dudleya*. These 8 species are also included in Table D.4-12. These species will also be protected through implementation of, the SDG&E Natural Community Conservation Plan (NCCP), and through avoidance of impacts to wetlands (MM BIO-10 through MM BIO-12). Locations of special-status plants shall be identified and inventoried. The qualified biologist shall supervise construction activities within the vicinity of areas identified as having special-status plant species. Impacts to special-status plant species shall be avoided to the maximum extent possible by installing fencing or flagging, marking areas to be avoided in construction areas, and limiting work in areas identified as having special-status plant species to periods of time when the plants have set seed and are no longer growing. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation as determined by the qualified biologist and approved by the CPUC. Alternatively, if the special-status plant species in question is a Covered Species within the SDG&E NCCP, mitigation consistent with measures established in the NCCP shall be provided. The results of the focused plant surveys and measures outlined above that will be implemented by SDG&E in the event special-status plant species are identified within the biological survey area shall be provided to CPUC and Forest Service. CPUC and Forest Service will review and approve the rare plant survey report and recommended avoidance or mitigation approached prior to issuance of a notice to proceed.	Pre-construction surveys for special-status plants are not necessary, per SDG&E's Subregional NCCP protocols, because all geotechnical borings will be conducted entirely within the limits of existing roads or within previously disturbed areas. Seismic refraction surveys will be conducted within previously disturbed areas to the maximum extent feasible. Nonetheless, a CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	N/A

Measure Category	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
Biological Resources	BIO-14	01	Special Status Plant Fencing/Flagging	Install fencing or flagging around identified special-status plant species populations in the construction areas. Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for special-status plant species for all construction areas. All of the special-status plant locations shall be recorded using a Global Positioning System (GPS), which will be used to site the avoidance fencing/flagging. Special-status plant species shall be avoided to the maximum extent possible by all construction activities. The boundaries of all special-status plant species to be avoided shall be delineated in the field with clearly visible fencing or flagging. The fencing/flagging shall be maintained for the duration of project construction activities.	Geotechnical investigations will not impact special-status plant species due to micro-siting in existing disturbed areas and access roads. A Sensitive Resources Map depicting special-status plant occurrences in the area and locations of fencing/flagging will be submitted to the CPUC and USFS on May 26, 2017. Special-status plant species will be fenced or flagged immediately prior to conducting the geotechnical investigations along this component. A CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-15	01	Special-Status Plant Compensation	Implement special-status plant species compensation. Impacts to special-status plant species shall be maximally avoided. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the Forest Service. Land preservation must be completed within 36 months of initiation of construction. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. Any salvage and relocation plans shall be approved by the permitting agencies prior to project construction. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. Success criteria and monitoring shall also be included in the plan. If salvage and relocation is not possible to the satisfaction of the Forest Service, off-site land preservation shall be required. Forest Service requirements will only apply to National Forest System lands.	The Special-Status Plant Species Salvage and Relocation Plan was approved by the CPUC on August 22, 2016 and by the USFS on August 24, 2016. Geotechnical investigations along this component will only occur within existing disturbed areas and access roads, and no impacts to special-status plant species will occur; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-16	01	Special-Status Butterfly Fencing and Surveys	Install fencing or flagging around identified special-status butterfly host species populations in the construction areas and road maintenance. Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for larvae or adult (nectar sources or egg laying sources) plant for the following species: Hermes copper butterfly, Laguna Mountains skipper, or Quino checkerspot butterfly. These host plants include Cleveland's horkelia, western plantain, bird's beak, owl's clover, California buckwheat, and spiny redberry. Similar protective measures for special-status plants (identified in MM BIO-13 and MM BIO-14) shall be implemented. Occupied or suitable habitat for these species shall be avoided to the greatest extent feasible. In addition to the implementation of SDG&E NCCP Operational Protocols, site visits will be conducted prior to construction and road maintenance. Prior to site visits, a digital database of known host plant populations will be reviewed. Site visits will verify the known locations of host plant populations in the area and, if present, avoid those locations.	Geotechnical investigations along this component will only occur within existing disturbed areas and access roads. Per direction from the USFS, SDG&E will not conduct protocol-level surveys for Laguna Mountains skipper; however, a qualified biologist approved by the CPUC and the USFS will survey for Laguna Mountains skipper host plants and nectar sources immediately prior to conducting the geotechnical investigations.	Pre	To Be Implemented Immediately Prior to Construction
Biological Resources	BIO-17	01	Butterfly Protocol Surveys	Conduct protocol surveys for Quino checkerspot, Hermes copper, and Laguna Mountains skipper butterflies within 1 year prior to project construction activities in occupied habitat. The project proponent shall conduct preconstruction protocol surveys for Quino checkerspot butterfly, Laguna Mountains skipper, and Hermes copper butterfly within 1 year prior to construction activities (or unless coordination with the U.S. Fish and Wildlife Service determines that SDG&E's low-effect habitat conservation plan (HCP) for Quino (SDG&E 2007) adequately protects the species, historical surveys are adequate, or as superseded by consultation with the USFWS and Forest Service) in any project construction area known to support the species. Surveys shall be conducted by a qualified biologist in accordance with the most currently accepted protocol survey methods for Quino checkerspot and Laguna Mountains skipper. This includes current habitat assessment and reporting requirements. Results shall be reported to USFWS and the CDFW South Coast Regional Office within 45 days of the completion of the survey. Surveys for Hermes copper butterfly shall follow County of San Diego Guidelines. A qualified biologist shall survey all potential habitat for Hermes copper which includes any woody (mature) spiny redberry shrub with California buckwheat within 15 feet. California buckwheat without spiny redberry nearby is not considered suitable habitat. If California buckwheat is within 15 feet of a mature spiny redberry shrub, additional vegetation within 15 feet should also be considered potential habitat for Hermes copper. All butterfly protocol survey data shall be provided to the CDFW South Coast Regional Office.	The Project's Biological Technical Report determined that Quino checkerspot and Hermes copper butterflies were absent on C440; therefore, this measure is not applicable. Per direction from the USFS, SDG&E will not conduct protocol-level surveys for Laguna Mountains skipper; therefore, this measure is not applicable.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
Biological Resources	BIO-18	01	Butterfly Habitat Compensation	Provide compensation for temporary and permanent impacts to Occupied or Critical Habitat for Quino checkerspot, Hermes copper, and Laguna Mountains skipper butterfly habitat through conservation and/or restoration. Temporary and permanent impacts to Quino checkerspot butterfly and Laguna Mountains skipper shall be compensated through a combination of habitat compensation and habitat restoration at a minimum of a 2:1 mitigation ratio for occupied non-critical habitat and a minimum of a 3:1 mitigation ratio for critical habitat, or as required by the permitting agencies. Forest-related impacts will be mitigated at the ratios provided above on Forest Service lands and in coordination with the Forest Service. Habitat compensation shall be accomplished through U.S. Fish and Wildlife Service-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting Quino checkerspot butterfly or Laguna Mountains skipper as appropriate. Mitigation for Hermes copper butterfly shall consist of 1:1 replacement of temporary impacts to occupied habitat, where host plants are impacted, and at a 2:1 ratio where permanent impacts occur. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as habitat compensation provided that the restoration effort is demonstrated to be feasible and implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to project construction. All habitat compensation and restoration used as mitigation for the proposed project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the proposed project on private lands shall include long-term management and legal protection assurances.	No critical habitat for Quino checkerspot butterfly or occupied habitat for Hermes copper butterfly occurs on this component. Laguna Mountains skipper critical habitat does occur along this component; however, geotechnical investigations will occur in existing disturbed areas and access roads. As a result, all Laguna Mountains skipper host plants will be avoided. Therefore, no temporary or permanent impacts to Laguna Mountains skipper butterfly habitat are anticipated, and no compensation will be required. A CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	N/A
Biological Resources	BIO-19	01	Avoid Butterfly Host Plants	Final design of power and distribution line and access roads through Quino checkerspot and Laguna Mountains skipper critical habitat and Hermes copper occupied habitat shall maximally avoid host plants for these species. The final design of the proposed project through Quino checkerspot, Hermes copper, and Laguna Mountains skipper butterfly habitat shall maximally avoid and minimize habitat resources used by these species based on safety and other superseding regulatory requirements. The applicant shall explore alternate tower locations, reduced road widths, reduced vegetation maintenance, and other design modifications to minimize impacts to host plants in critical habitat for these species, and it shall obtain agency approval of the final design through this area. If impacts are not avoided, compensatory mitigation, as described per MM BIO-18, will be required. This measure shall apply to all locations that have been designated as critical or occupied habitat for these species.	The geotechnical investigations do not include the final design for C440; therefore, this measure is not applicable.	Pre	N/A
Biological Resources	BIO-20	01	Obtain Wildlife Permits	Obtain and implement the terms of agency permit(s) with jurisdiction federal or state-listed species. In addition to the obligation of the Forest Service consulting with the USFWS on the project, if federally listed wildlife species not already covered by SDG&E's NCCP (including any species that may be listed prior to issuance of the PTC and MSUP) may be impacted by the project, the Forest Service will initiate a Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS). If state-listed wildlife species not already covered by SDG&E's NCCP may be impacted by the project, SDG&E will seek a Section 2081 permit (or consistency determination) from the California Department of Fish and Wildlife (CDFW). In addition, take authorization for golden eagles will require coordination with the USFWS and CDFW. SDG&E shall implement and/or adhere to all USFWS recommendations stipulated by the Forest Service in the Special Use Permit; SDG&E shall implement and/or adhere to all requirements in CDFW permit. SDG&E will not need a Section 2081 permit if the potentially impacted species or action is covered by SDG&E's NCCP. The Forest Service is required to consult with the USFWS for their federal action (approving the MSUP) as identified in Section A, Table A-3.	The Project is covered by SDG&E's Subregional NCCP and Quino checkerspot butterfly Low-Effect Habitat Conservation Plan. A Biological Opinion was issued for the Project on November 19, 2015. Conservation measures from the Biological Opinion will be implemented prior to and during the geotechnical investigations as necessary.	Pre	To Be Implemented During Construction
Biological Resources	BIO-20	02	Obtain Wildlife Permits	When conducting work within designated critical habitat for the Quino checkerspot butterfly, SDG&E shall implement all applicable protocols to avoid and minimize impacts to this species defined in the SDG&E Low-Effect Habitat Conservation Plan for Quino.	There is no critical habitat for Quino checkerspot butterfly along this component; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
Biological Resources	BIO-20	03	Obtain Wildlife Permits	Additionally, when working within designated critical habitat for Laguna Mountains skipper, SDG&E shall implement all impact minimization measures for Laguna Mountains skipper (USFS 2006c), consistent with USFWS direction (USFWS 2006, 2007), which includes:1. Prior to project work, a qualified biologist shall identify all LMS habitat (to include host plant and nectar sources) within 10 meters of the proposed project(s) ROW. SDG&E facilities that are within designated critical habitat for Laguna Mountains skipper are shown on USFWS Critical Habitat maps (71 FR 74592–74615). During any maintenance activities, a qualified biologist will be present to monitor work and ensure that Laguna Mountains skipper habitat is not affected.2. Chipping of vegetation shall not be allowed in known or potential Laguna Mountains skipper habitat. This includes the ROW within or adjacent to (within 10 meters) known or potential Laguna Mountains skipper habitat. Potential habitat shall be identified by the qualified biologist either during the host plant/nectar source survey or some time previous to the onset of ROW work. 3. Vehicles or tracked equipment shall only be allowed on existing roads or trails when operating within or adjacent to Laguna Mountains skipper habitat. Prior to operation of vehicles on existing roads or trails, a qualified biologist will ensure that the road or trail itself does not contain host plants or nectar sources. 4. Any project that may adversely affect the Laguna Mountains skipper shall require consultation with the U.S. Fish and Wildlife Service. If the NCCP is not used, then formal consultation with the USFWS and CDFW will need to occur to determine the need for take permits	Geotechnical investigations will only occur within existing disturbed areas and access roads. A qualified biologist approved by the CPUC and the USFS will survey for Laguna Mountains skipper host plants and nectar sources prior to conducting the geotechnical investigation work. The biologist will identify areas for avoidance to ensure Laguna Mountains skipper and its habitat are not affected. A CPUC- and USFS- approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	To Be Implemented Immediately Prior to Construction
Biological Resources	BIO-21	01	Sensitive Butterfly Species Construction Measures	If construction occurs in occupied and/or suitable habitat for sensitive butterfly species, SDG&E will implement the following: Quino checkerspot: SDG&E will comply with the avoidance and minimization measures outlined in the existing Low-Effect Habitat Conservation Plan for Quino checkerspot butterfly.	No occupied or suitable habitat for Quino checkerspot butterfly exists along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-21	02	Sensitive Butterfly Species Construction Measures	Hermes copper: Because this species is not state- or federally listed, the following will only be required for activities: While performing construction activities within the flight season, a qualified biological monitor will be on-site for all project activities to assure that both impacts to host plants and direct take of Hermes copper butterflies are avoided to the greatest extent feasible. The biological monitor may temporarily stop work in the event a Hermes copper butterfly is observed within the immediate construction area (i.e., the flagged work areas currently being used for construction activities.)	No occupied or suitable habitat for Hermes copper butterfly exists along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-21	03	Sensitive Butterfly Species Construction Measures	Laguna Mountains skipper butterfly: Construction will occur outside of the flight season OR at least 10 meters (33 feet) away from all host plant locations. If there is a known or newly discovered occurrence during the flight season, construction shall be prohibited within 1 kilometer (0.6 mile) of the occurrence or unless coordination with the U.S. Fish and Wildlife Service determines construction activities may commence. The Laguna Mountains skipper flight season occurs from April to July.	In the event that geotechnical investigations are conducted within Laguna Mountains skipper flight season, all work will be prohibited within 33 feet of all host plant locations and within 0.6 mile of any known or newly discovered occurrences of Laguna Mountains skipper. A qualified biologist will be present during all geotechnical investigations during the flight season to monitor for Laguna Mountains skipper.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-22	01	Biological Monitoring	Biologists will monitor construction activities. San Diego Gas & Electric (SDG&E) shall retain qualified biologists and other qualified resource specialists, as necessary, to monitor all project construction activities that could reasonably result in impacts to biological resources. All monitor qualifications shall be reviewed and approved by the California Public Utilities Commission (CPUC) prior to conducting monitoring activities along the right-of-way. Monitors shall be responsible for preconstruction surveys, work area delineations (i.e., staking, flagging, etc.) to comply with SDG&E’s Natural Community Conservation Plan, on-site monitoring, and documentation of violations and compliance. Monitors shall also delineate pre-determined access routes using markers or signs and ensure the maintenance of markers or signs on a regular basis.	CPUC- and USFS-approved biological monitors will be monitoring during the geotechnical investigations. Biological monitors that were identified as “Trainees Only” by the USFS will only conduct monitoring on private lands or under the supervision of a fully approved biologist on USFS-managed lands. Biological monitoring results will be submitted within the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-24	01	Speed Limits	Enforce speed limits in and around all construction areas. Vehicles shall not exceed 15 miles per hour on unpaved roads (as stated in SDG&E NCCP 7.1 Operational Protocols) and the right-of-way accessing the construction site or 10 miles per hour during the night.	Documentation that the MMCRP has been incorporated into the construction compliance contracts was provided to the CPUC and USFS on July 20, 2016. Documentation that MM BIO-24 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. Project biological monitors will enforce speed limits along this component during the geotechnical investigations, and compliance with this measure will be documented in the Weekly Environmental Compliance Report submitted to the CPUC and USFS.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-26	01	Prohibit Littering	Prohibit littering and remove trash from construction areas daily. Littering shall not be allowed by the project personnel. All food-related trash and garbage shall be removed from the construction sites on a daily basis.	Documentation that the MMCRP was incorporated into the construction compliance contract was provided to the CPUC and USFS on July 20, 2016. Documentation that MM BIO-26 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. This measure will be implemented during the geotechnical investigations along this component and documented in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-27	01	Prohibit Harassment of Wildlife	Prohibit the harm, harassment, collection of, or feeding of wildlife. Project personnel shall not harm, harass, collect, or feed wildlife. No pets shall be allowed in the construction areas.	Documentation that the MMCRP was incorporated into the construction compliance contract was provided to the CPUC and USFS on July 20, 2016. Documentation that MM BIO-27 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. This measure will be implemented during the geotechnical investigations along this component and documented in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-28	02	Implement Bird Protection Measures	To avoid avian disturbance by construction activities, an Avian Protection Plan, including a Nesting Bird Management Plan, shall be developed in coordination with the Wildlife Agencies prior to project onset to develop measures based on site specific conditions to protect birds. This Avian Protection Plan shall be implemented by SDG&E and their biological monitors with oversight by the CPUC and the Forest Service. The Plan shall include procedures to allow the Wildlife Agencies open communication with the biological monitor(s) and access to scientific data collected that will be electronically stored in a database approved by the CPUC, the Forest Service, and the Wildlife Agencies. Between February and September during project construction, SDG&E shall provide a monthly summary of nesting bird monitoring activities and at the completion of each nesting season shall provide an evaluation of the data collected to date as specified in the Nesting Bird Management Plan. B. The Project's transmission pole and line design may have an impact on certain raptor species. Consequently, in addition to the construction activities, the Plan shall address avian mortality related to line strikes through the use of adaptive management (i.e., measures to make the lines more visible to the suite of species affected), in response to reported mortalities. C. The Avian Protection Plan shall include the following measures: a. Compliance with the Migratory Bird Treaty Act b. Compliance with Fish and Game Code Sections 3503, 3503.5, and 3511c. Activities shall be prohibited with i. Approximately 0.25 mile of California spotted owl active nest sites (or activity centers) during the breeding season (February 1through August 15) unless surveys confirm that California spotted owls are not nesting within the 0.25- mile radius; ii. 500 feet of raptor and owl active nests; iii. 500 feet of federally and/or state-listed birds active nests; iv. 250 feet of occupied burrowing owl burrows from February 1 to August 31 or within 160 feet from September 1 through January 31; and. 150 feet of non-listed birds and as specified in the avian protection plan for other bird species of concern.	The APP/NBMP has been developed in coordination with the Wildlife Agencies. Approval of the APP/NBMP was received from the CDFW on May 18, 2016; from the USFWS on June 20, 2016; from the USFS on June 30, 2016; and from the CPUC on July 19, 2016. The APP/NBMP will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-28	03	Implement Bird Protection Measures	If year-round burrowing owls are identified and there would only be temporary indirect impacts, then work may continue through coordination with the CDFW and monitoring. If it appears that the burrowing owls may be directly impacted, then a relocation plan will be developed for the specific burrowing owl(s). This plan would include the methods to relocate, location of the relocation, and post-relocation monitoring. Active relocation and banding of birds is not required. Similar buffers will be utilized for non-Forest Service lands as specified in the Avian Protection Plan and Nesting Bird Management Plan. "Nest" is defined as a structure or site under construction or preparation, constructed or prepared, or being used by a bird for the purpose of incubating eggs or rearing young. Perching sites and screening vegetation are not part of the nest. "Active nest" is defined as once birds begin constructing, preparing, or using a nest for egg-laying. A nest is no longer an "active nest" if abandoned by the adult birds or once nestlings or fledglings are no longer dependent on the nest.	Burrowing owls were not detected during surveys for this component. If burrowing owls are identified in the vicinity of the geotechnical investigation sites during the general nesting bird surveys, the required procedures will be followed in accordance with MM BIO-28 and the CDFW-approved APP/NBMP.	Pre and During	To Be Implemented Immediately Prior to Construction
Biological Resources	BIO-28	04	Implement Bird Protection Measures	d. Apply APLIC Measures. Specific APLIC measures to be applied must, at a minimum, must allow the circuits to meet National Electric Safety Code (NESC) requirements and should provide general information on specialized construction designs to meet APLIC standards. In particular, conductor separation between the energized and grounded hardware should meet the current state of the art requirements to protect species up to California condor. If appropriate separation is not feasible, then the energized parts and hardware should be covered. As appropriate, bird diverters should be deployed as well.	APLIC measures included in the APP do not apply to geotechnical investigations; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-28	05	Implement Bird Protection Measures	D. The database shall include special features to accommodate additional variables (covariate) information requested by the Wildlife Agencies designed for this Project that will provide data which will contribute to the scientific standards of effective avian avoidance measures. In order to help evaluate buffer effectiveness, nests shall be monitored on a daily basis by a qualified biologist during disturbance and-related activities (i.e., brushing, tree trimming, ground-disturbing activities, mechanized or manual construction/removal/installation, and restoration activities) and every 4 days following disturbance until nest fates have been determined for entry into the database. Daily nest monitoring will be conducted by a qualified biologist, from as far away as possible while still being able to observe activity. The biologist need not observe the actual contents of the nest, but may extrapolate status based on adult behaviors. Actual surveys of the nest contents must not occur more than weekly (i.e., allow at least 7 days between nest visits) and visits should be very brief, paths should go by the nest without stopping if possible, the biologist should not touch leaves or branches, and should take a new route each time they pass by the nest. If brown-headed cowbirds or potential nest predators (e.g., scrub jays, crows, ravens) are in the area, then the visit should be postponed until they are gone.	CPUC- and USFS-approved avian biologists will conduct surveys and nest monitoring during the geotechnical investigations in compliance with MM BIO-28. Avian biologists that were conditionally approved by the CPUC will only conduct monitoring on private lands under the supervision of a fully approved avian biologist. The Avian Reporting Database is described in Section 8 - Avian Reporting Database of the approved NBMP. Nests will be monitored in accordance with the approved NBMP. SDG&E will provide database access to the wildlife agencies as stipulated in the measure.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-28	06	Implement Bird Protection Measures	At a minimum, the plan(s) shall include the following sections: Plan Objectives; Applicable Mitigation Measures; Environmental Awareness Program; Existing Avian Resources; Construction Process and Timing (related to avian resource protection); Specific APLIC measures to be Applied; Nest Survey and Monitoring Method; Surveyor Experience and Training; Nesting Bird Survey Protocol; Standard Buffer Distances as determined in consultation with Wildlife Agencies; Protections of Listed Species, Raptors, and Eagles; Nest Monitoring Data Collection; Avian Reporting System; Nest Monitoring Log to include fates of all nests monitored; Reporting including update of database accessible to Wildlife Agencies; Nest Management; Nesting Habitat Reduction; Nesting Deterrent; Nest Removal; Risk Assessment and Mortality Reduction; Quality Control and Effectiveness; Avian Enhancement; Key Resources; Prior to the start of construction and implementation, SDG&E shall submit the plan to the U.S. Fish and Wildlife Service, CDFW, CPUC, and Forest Service for review and approval.	The APP/NBMP has been developed in coordination with the Wildlife Agencies. Approval of the APP/NBMP was received from the CDFW on May 18, 2016; from the USFWS on June 20, 2016; from the USFS on June 30, 2016; and from the CPUC on July 19, 2016. The APP/NBMP will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-28	07	Implement Bird Protection Measures	E. In order to identify locations of current bald eagle (<i>Haliaeetus leucocephalus</i>), golden eagle (<i>Aquila chrysaetos</i>), California spotted owl (<i>Strix occidentalis</i>), American peregrine falcon (<i>Falco peregrinus anatum</i>), or federally and/or state-listed or fully protected bird nests, the monitoring biologists will coordinate with the U.S. Forest Service (Forest Service), U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife (CDFW) to ensure that the most up to date information is made available to monitoring biologists. If work will be conducted within a 1 mile buffer of historic and currently known nests during the bald or golden eagle breeding season (December 15 through July 31), SDG&E will survey the historic and currently known nests sites to determine if they are active. If nests are determined to be active, then work within 1 mile of active nests shall be rescheduled until after the completion of nesting activity at those nests. Alternatively, SDG&E may plan work activities to occur outside of the 1 mile buffers during the breeding season.	Coordination with the USFS, CDFW, and USFWS is ongoing, in accordance with this measure. These species are addressed in Section 7.2 Protections of Listed Species, Raptors, and Eagles of the approved NBMP. During the geotechnical investigations along this component, nest surveys and nest buffers will be implemented in accordance with the approved NBMP.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-30	01	Bat Protection	(A) Townsend's bat protection measures Prior to work being conducted, measures will be employed to protect (a) Townsend's bat and (b) bats in general. Prior to work being conducted, qualified biologists will conduct a literature search for potential roost sites and follow-up surveys for Townsend's big-eared bat maternity roosts within 500 feet of project lines during the breeding/pupping season (April-mid-September). Typical Townsend's big-eared bat roosts occur in mines, caves, buildings, long and dark culverts, and older bridges (pre-1960) (Pierson and Rainey 1994). If any potential structures or features for Townsend's big-eared bat are present within the project area they shall be surveyed.	A literature review for potential Townsend's big-eared bat roosts was conducted in 2017. Follow-up surveys will be conducted by CPUC- and USFS-approved bat biologists prior to conducting the geotechnical investigations. The bat roost assessment and focused survey report will be submitted to the CDFW prior to conducting the geotechnical investigations. Documentation of the submittal to the CDFW will be provided to the CPUC and USFS.	Pre	Pending
Biological Resources	BIO-30	02	Bat Protection	Inspections of potential roosts shall be conducted using an appropriate combination of visual and acoustic survey techniques (including structure inspection, sampling, and/or exit counts) for areas that may be directly or indirectly impacted by the project. Where active roosts are located, reporting shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number present at the time of visit (count or estimate); 3) the location, amount, distribution, and age of all droppings shall be described and pinpointed on a map; and 4) the type of roost (i.e., night roost – rest at night while out feeding vs. day roost – maternity colony) must also be clearly stated. All survey results, including field data sheets, shall be provided to the CDFW South Coast Regional Office. Locations of all roosts shall be kept confidential to protect them from disturbance. If non-maternity roosts are identified, the CDFW will be notified and consulted. If maternity roosts are present, the CDFW and CPUC will be notified and no work will occur within 500 feet of the roost location until the end of the pupping season or until the roost is determined to be unoccupied by Townsend's big-eared bat. For the protection of young (i.e., unable to fly) and hibernating adults all project-related activities shall be avoided where roosts are present during the winter and spring. No restrictions apply to project vehicle traffic on existing access roads, or to construction activity that occurs outside of the pupping season.	If potential roosts are discovered during the literature review and focused surveys, follow-up inspections will be conducted by CPUC- and USFS-approved bat biologists in areas that may be directly or indirectly impacted by the Project prior to conducting the geotechnical investigations. All survey results, including field data sheets, will be provided to the CDFW, and submittal documentation will be provided to the CPUC and the USFS.	Pre and During	Pending

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-30	03	Bat Protection	(B) General bat protection measures for other bat species Prior to work being conducted, qualified biologists will conduct a literature search for known general bat roost sites and follow-up surveys within 100 feet of project lines during the breeding/pupping season (April–mid-September). In general, bat species may roost in rock outcrop, dense tree canopies, flaking tree bark, snags, bridges, mine, caves, flumes, and buildings. If any known sites for bats in general are present within the project area they shall be surveyed.	A literature review for potential general bat roosts was conducted in 2017. Follow-up surveys will be conducted by CPUC- and USFS-approved bat biologists prior to conducting the geotechnical investigations. The bat roost assessment and focused survey report will be submitted to the CDFW prior to conducting the geotechnical investigations work. Documentation of the submittal to the CDFW will be provided to the CPUC and USFS.	Pre	Pending
Biological Resources	BIO-30	04	Bat Protection	Inspections of known roosts shall be conducted using an appropriate combination of visual and acoustic survey techniques (including structure inspection, sampling, and/or exit counts) for areas that may be directly or indirectly impacted by the project. Bats shall be identified to the most specific taxonomic level possible. Where active bat roosts are located, reporting shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) each species of bat present shall be named (include how the specific was identified); 4) the location, amount, distribution, and age of all bat droppings shall be described and pinpointed on a map; and 5) the type of roost (i.e., night roost – rest at night while out feeding vs. day roost – maternity colony) must also be clearly stated. All survey results, including field data sheets, shall be provided to the CDFW South Coast Regional Office. Locations of all roosts shall be kept confidential to protect them from disturbance.	If potential roosts are discovered during the literature review and focused surveys, follow-up inspections will be conducted by CPUC- and USFS-approved bat biologists in areas that may be directly or indirectly impacted by the Project prior to conducting the geotechnical investigations. All survey results, including field data sheets, will be provided to the CDFW, and submittal documentation will be provided to the CPUC and USFS.	Pre	Pending
Biological Resources	BIO-30	05	Bat Protection	If potential roosts are determined to be present then the roosts must be analyzed further to determine if Townsend’s big-eared bats are present and if maternity roosts are present. If maternity roosts are present, the CDFW and CPUC will be notified and no work will occur within 100 feet of the roost location until the end of the pupping. For the protection of young (i.e., unable to fly) and hibernating adults, all project-related activities shall be avoided where roosts are present during the winter and spring. No restrictions apply to project vehicle traffic on existing access roads, or to construction activity that occurs outside of the pupping season.	If Townsend’s big-eared bat roosts are identified within 500 feet of C440 and/or maternity bat roosts are identified within 100 feet, then construction exclusion buffers will be established during pupping season or until the roost is determined to be unoccupied. If bat roosts are identified in the Project vicinity, the CPUC and CDFW will be notified.	Pre and During	Pending
Biological Resources	BIO-31	01	Kangaroo Rat Survey	Biologists will conduct surveys for Stephens’ kangaroo rat. In locations where Stephens’ kangaroo rat habitat assessments were not accessible during the 2010 surveys (including the extensive parcels of land westward of Santa Ysabel owned by a single landowner – Map Pages MS-016-025 [Chambers Group Inc. and SJM Biological Consultants 2012; Appendix A] and the large parcel immediately south of Old Highway 80 and southward of southern end of Kitchen Creek Road [Map Page MS-069 [Chambers Group Inc. and SJM Biological Consultants 2012]; Appendix A]), a pedestrian preconstruction survey for potentially occupied suitable habitat (open habitat with suitable soils, slope, and kangaroo rat burrows) and follow-up trapping to confirm species, will be conducted by a California Public Utilities Commission (CPUC)-approved biologist to assess the potential areas for Stephens’ kangaroo rat to occur within SDG&E’s proposed project area.	No SKR habitat occurs along this Project component; therefore, this measure is not applicable.	Pre	N/A
Biological Resources	BIO-31	02	Kangaroo Rat Survey	Any burrows, utilized habitat, or signs of Stephens’ kangaroo rat utilizing a habitat (e.g., track prints) will be flagged for avoidance during construction activities. The monitoring biologist shall halt construction activities if he or she determines that the construction activities are disturbing Stephens’ kangaroo rat occupied habitat. If Stephens’ kangaroo rat occupied habitat cannot be avoided during construction, the monitoring biologist shall make recommendations to ensure minimal impacts to the existing Stephens’ kangaroo rat habitat and burrows during construction. Recommendations may include, but are not limited to: (1) re-routing access to the project work area for complete avoidance of Stephens’ kangaroo rat occupied habitat; or (2) placement of dirt piles or sediment to avoid occupied burrows. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the CPUC.	No SKR habitat occurs along this Project component; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-33	01	Arroyo Toad Focused Surveys	Focused surveys for arroyo toad shall be conducted. Prior to initiating construction, all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed during the appropriate season (December 1 through July 31) for arroyo toad. The applicant shall contract with a qualified biologist to conduct focused surveys for arroyo toad. If arroyo toads are detected in or adjacent to the project site, no work will be authorized within 500 feet of occupied habitat until the project applicant receives concurrence from the U.S. Fish and Wildlife Service (USFWS) that work may proceed.	C440 is not listed in the measure; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-33	02	Arroyo Toad Focused Surveys	If arroyo toads are detected in or adjacent to the project site, the project applicant shall develop and implement a monitoring plan that includes the following measures, in consultation with the USFWS: [Refer to MM BIO-33 in the MMCRP for all 16 monitoring plan specifications]	This measure is only applicable to C157; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-33	03	Arroyo Toad Focused Surveys	On Forest Service lands, occupied arroyo toad breeding habitat will be mitigated at a 3:1 ratio; occupied arroyo toad upland burrowing habitat will be mitigated at 2:1; and unoccupied arroyo toad habitat (or designated critical habitat) will be mitigated at 2:1. In addition, a Forest Service consultation will be conducted to verify limited operating periods for arroyo toad are defined.	This measure is only applicable to C157; therefore, this measure is not applicable.	Pre and Post	N/A
Cultural and Paleontological Resources	APM-CUL-01	01	Archaeological and Paleontological Trainings	Prior to construction, all SDG&E, contractor, and subcontractor personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural, archaeological, and paleontological resources and how to recognize possible buried resources. This training will include a presentation of the procedures to be followed upon discovery or suspected discovery of cultural and archaeological materials, including Native American remains and their treatment, as well as of paleontological resources.	The Worker Environmental Awareness Program training includes a presentation on the applicable environmental laws and regulations, including the potential for exposing subsurface cultural, archaeological, and paleontological resources and how to recognize possible buried resources. This training includes a presentation of the procedures to be followed upon discovery or suspected discovery of cultural and archaeological materials, including Native American remains and their treatment, as well as paleontological resources. All construction personnel will attend the Worker Environmental Awareness Program training immediately prior to beginning work on the Project.	Pre and During	To Be Implemented Immediately Prior to Construction
Cultural and Paleontological Resources	APM-CUL-02	01	Pre-Construction Cultural Surveys	Intensive pedestrian surveys will be conducted prior to construction in those areas within the ROWs for which initial survey access was not granted to determine the potential for impacts to cultural resources in these areas. Where possible, engineering design will be re-evaluated to determine whether facilities can be relocated to avoid any cultural resources identified from these additional surveys. If relocation is not feasible, APM CUL-03 will be implemented to minimize impacts to sensitive cultural resources.	Cultural resources surveys encompassing the majority of the geotechnical investigation sites along C440 were completed during the initial survey in 2011 (Schaefer and Williams, 2011: The 2011 [Revised 2013] Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland National Forest Transmission and Distribution Line Increased Fire Safety Project in support of the Proponent's Environmental Assessment), as well during the 2015, 2016, and 2017 surveys. Geotechnical investigations will not impact known cultural resources due to micro-siting in the field. In addition, a cultural monitor will be present as needed.	Pre	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological Resources	APM-CUL-03	01	Designate ESAs	All potentially National Register-eligible or archaeologically sensitive sites, as defined in the Cultural Resources Technical Report, that will not be directly affected by construction but are within 50 feet of replacement pole locations will be designated as Environmentally Sensitive Areas (ESAs). Potentially eligible resources include those that are recommended eligible, as well as unevaluated sites. Protective fencing or other markers will be erected and maintained to protect these ESAs from inadvertent trespass for the duration of construction in the vicinity. ESAs will not be signed or marked as cultural, historical, or archaeological resources.	Any ESAs located within 50 feet of the geotechnical investigation sites will be delineated with protective fencing prior to conducting geotechnical investigations along this component.	Pre and During	To Be Implemented Immediately Prior to Construction
Cultural and Paleontological Resources	APM-CUL-06	01	Cultural Resources Treatment Plan	In consultation with the Forest Service HPM, BIA Archaeologist, the Tribes, and the SHPO, SDG&E will develop a Cultural Resources Treatment Plan that includes procedures for protection and avoidance, evaluation and treatment, and the curation of any potentially register-eligible cultural materials. Specific protective measures, including a monitoring program, will be defined in the Cultural Resources Treatment Plan to reduce potential adverse impacts on unknown cultural resources to less-than-significant levels.	The required components of the Cultural Resources Treatment Plan were incorporated into the Historic Properties Management Plan. The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016, and by the CPUC and SHPO on August 26, 2016. Completion of MM CUL-01 satisfies the requirements of this APM.	Pre	Complete
Cultural and Paleontological Resources	APM-CUL-08	04	Paleontological Monitoring	The paleontological monitor will follow the procedures outlined in the Paleontological Monitoring and Treatment Plan, which will be prepared and will include information regarding pre-construction field surveys, construction personnel training, necessary permits, research design, monitoring methodology, fossil discovery and recovery protocols, fossil preparation and curation procedures, and the preparation of a final monitoring report.	Based on guidance from the San Diego Natural History Museum's Department of PaleoServices, the diameter of the geotechnical drill is too small to necessitate the need for paleontological monitoring given the very small amount of earthwork involved, and seismic refraction surveys do not include earthwork; therefore, paleontological monitoring is not required for the geotechnical investigations.	Pre and During	N/A
Cultural and Paleontological Resources	CUL-01	01	Cultural Resource Management	In order to avoid adverse effects to historic properties, SDG&E will implement a comprehensive approach to cultural resource management consistent with any project specific Programmatic Agreement developed between the federal agencies and the SHPO. The comprehensive approach will include, at a minimum, the following elements:	The Project's Programmatic Agreement was finalized in February 2016. The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016. The Project's Historic Properties Management Plan outlines procedures for cultural resource management consistent with this measure, and it will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological Resources	CUL-01	02	Cultural Resource Management	1a. – Inventory and evaluate cultural resources in the Final Area of Potential Effect (APE). Prior to any ground disturbing activities, SDG&E will complete inventories within the APE and submit the results of those inventories for approval by the CPUC and federal agencies. These surveys shall supplement surveys done for the EIR/EIS and will satisfy Section 106 requirements.	Cultural resources surveys were completed in 2011 by ASM Affiliates, Inc. (Schaefer and Williams, 2011: The 2011 [Revised 2013] Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland National Forest Transmission and Distribution Line Increased Fire Safety Project in support of the Proponent's Environmental Assessment), and in 2015, 2016, and 2017. Subsequent surveys will be conducted for geotechnical investigation sites that were not reviewed during the original surveys. The results of these surveys will be submitted to the CPUC and USFS prior to conducting the geotechnical investigations. The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre	Pending
Cultural and Paleontological Resources	CUL-01	03	Cultural Resource Management	1b. – Avoid and protect potentially significant resources. Where feasible, complete avoidance of impacts shall be the preferred strategy. Where the federal agencies and CPUC decide that cultural resources cannot be avoided, they will be incorporated into a Historic Properties Management Plan (HPMP), as described below.	Impacts to known cultural and historical resources will be avoided during the geotechnical investigations along this component. Maps identifying all ESAs to be flagged and avoided during the geotechnical investigations will be provided to the CPUC and USFS prior to conducting the geotechnical investigations.	Pre and During	Pending
Cultural and Paleontological Resources	CUL-01	04	Cultural Resource Management	1c. – Develop and Implement Historic Properties Management Plan. After completing the inventory and avoidance phase of site design, SDG&E will prepare and submit for approval an HPMP to avoid or mitigate identified potential impacts.	The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre and During	Complete
Cultural and Paleontological Resources	CUL-02	01	Reduce Impacts to Historic Cabins	In order to reduce adverse effects and significant impacts to historic resources along C79, C440, and C442 as identified in Table D.5-12 of the EIR/EIS, the original exterior materials on the cabins shall not be removed, modified, or covered. If equipment attached to the cabins must be replaced, the equipment shall retain its original appearance in terms of materials and size. If this cannot be met, then a cultural monitor is required to be present during the replacement of the lines to minimize modifications to the cabin exteriors.	The geotechnical investigations along this component do not require replacing poles or conductor near the historic cabins, and will only occur in existing disturbed areas and access roads; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological Resources	CUL-03	01	Implement CRTR Recommendations	<p>During construction of the proposed power line replacement projects, all measures as identified in Tables 3 and 6 for TL625, Tables 9 and 11 for TL626, Tables 14 and 17 for TL629, Table 20 for TL682, Table 23 for TL6923, Table 26 for C78, Table 29 for C79, Table 31 for C157, Table 34 for C440, Table 37 for C442, and Table 40 for C449 of the Cultural Resources Technical Report prepared by ASM (ASM 2011) shall be implemented. All measures shall be implemented by a qualified archaeologist who is approved by the California Public Utilities Commission and Forest Service. Further, when on City-owned land (portions of C157, T625, and C449), the City's Land Development Manual – Historical Resource Guidelines per the San Diego Municipal Code, Chapter 14, Article 3, Division 2, Section 14.0201, shall be followed (http://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art03Division02.pdf).</p>	<p>Where poles and trench locations require monitoring and/or avoidance in Table 34 for C440, monitoring and/or avoidance recommendations will be applied to the associated geotechnical activity. Documentation confirming the completion of monitoring will be provided to the CPUC and USFS in the Weekly Environmental Compliance Report. Resumes of archaeologists that will be implementing measures were submitted to the CPUC and the USFS on July 28, 2016. Approval of the archaeologists' qualifications was received from the CPUC on August 11, 2016 and from the USFS on August 12, 2016. Maps depicting the locations of cultural ESAs and ESA fencing will be provided to the CPUC and USFS prior to conducting the geotechnical investigations.</p>	Pre and During	Pending

Measure Category	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
Fire Protection	FF-01	01	Fire Prevention/Protection Plan	SDG&E shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the U.S. Forest Service, Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of lead agencies. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the commenting agencies prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following:-Procedures for minimizing potential ignition, Vegetation clearing, Fuel treatment area establishment to Parking requirements, Smoking restrictions, Hot work restrictions- Red Flag Warning restrictions- Fire coordinator role and responsibility- Fire suppression equipment on site at all times work is occurring- Requirements of Title 14 of the California Code of Regulations, 918 "Fire Protection" for the private land portions- Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice 113-1 (July 2012)- Emergency response and reporting procedures- Emergency contact information- Worker education materials; kick-off and tailgate meeting schedules- Other information as provided by responsible and commenting agencies (as appropriate for each project). Additional restrictions will include the following: During the construction phase of the project, the applicant shall implement ongoing fire patrols. The applicant shall maintain fire patrols during construction hours and for 1 hour after end of daily construction and hotwork; Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), the applicant shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the Forest Service, BLM, BIA, SDRFPD, SDCFA, and CAL FIRE; During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs), and when the Forest Service Project Activity Level (PAL) is "E" on Cleveland National Forest (CNF) (as appropriate), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under a Hot Work Procedure. The Hot Work Procedure will be in compliance with the applicable sections in NFPA 51-B "Fire prevention during welding, cutting, or other hot work" and CFC Chapter 26 "Welding and other Hot Work." The applicant and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF. All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area as soon as the fire is identified/discovered immediately upon ignition. Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crew members as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect. Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 50 feet of fire suppression equipment, as outlined in ESP 113.1. SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the responsible fire agencies for comment a minimum of 90 days prior to the start of any construction activities. The final plan will be approved by the responsible lead agencies with input from the fire and permitting agencies, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities. All construction work on the proposed power line replacement projects shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.	The Construction Fire Prevention/Protection Plan was approved by the SDCFA on December 2, 2015; by the SDRFPD, CAL FIRE, and the BLM on December 18, 2015; by the BIA on January 7, 2016; by the USFS on June 17, 2016; and by the CPUC on July 29, 2016. An updated plan was submitted to the CPUC and USFS on September 30, 2016, but no approval was required. The plan will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction
General	APM-GEN-06	01	Conduct Notifications	Prior to initiating construction, SDG&E will make all the appropriate and necessary notifications, including landowner notifications.	This measure will be satisfied through the implementation of MM LU-01 and in accordance with the Construction Notification Plan.	Pre	Pending
General	APM-GEN-07	01	Excavation Notification	SDG&E will notify the Underground Service Alert a minimum of 48 hours in advance of excavating or conducting other ground-disturbing activities in order to identify buried utilities. Exploratory excavations (potholing) will also be conducted to verify the locations of existing facilities in the field, if necessary.	This measure will be implemented immediately prior to ground disturbance as applicable.	Pre and During	To Be Implemented Immediately Prior to Construction
Hydrology and Water Quality	APM-HYD-04	01	Conduct Wetlands and Waters Surveys	Any areas not surveyed for potentially jurisdictional wetlands or waters due to limited access will be surveyed prior to the start of construction activities and potential impacts will be assessed and the appropriate jurisdictional permits will be obtained as needed.	All geotechnical investigation sites will be located within existing access roads or previously disturbed areas; therefore, no impacts to jurisdictional waters were identified and no permits are required.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	APM-HYD-05	01	SWPPP	SDG&E will prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will identify BMPs based on its Water Quality BMPs Manual for each activity that has the potential to degrade surrounding water quality through erosion, sediment run-off, and other pollutants. These BMPs will then be implemented and monitored by a Qualified SWPPP Practitioner.	The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e. SWPPP preparation). The geotechnical investigations will result in approximately 0.8 acre in ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre and During	N/A
Hydrology and Water Quality	HYD-01	01	Erosion Control Plan/SWPPP	SDG&E shall develop and implement an Erosion Control Plan (ECP) for construction, operations, and maintenance activities in order to prevent and control soil erosion and gulying. The ECP shall include Forest Service best management practices specific to re-vegetation requirements (scarifying the soil, and fertilizing, seeding and/or mulching, as required to achieve proper post-construction site stabilization) and incorporate Construction General Permit SWPPP requirements for each construction segment as the SWPPP(s) for that segment are completed. Additionally, the ECP shall complement restoration goals and objectives identified in the Habitat Restoration Plan, as required under MM BIO-4. The ECP shall be updated for each construction segment and provided to the (CPUC) and the federal agencies for review and approval prior to each agency's Notice to Proceed issuance for that construction segment.	The Erosion Control Plan was approved by the CPUC and USFS on August 11, 2016. An updated Erosion Control Plan and SWPPP BMP attachment is not required for geotechnical investigations. The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e., SWPPP preparation). The geotechnical investigations will result in approximately 0.8 acre in ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre, During, and Post	To Be Implemented During Construction
Hydrology and Water Quality	HYD-01	02	Erosion Control Plan/SWPPP	As required by the Construction General Permit, SDG&E shall develop a Storm Water Pollution Prevention Plan (SWPPP) for the project or for individual construction segments, as required, to reduce soil erosion during construction. The SWPPP(s) and verification of submittal to the RWQCB shall be submitted to the CPUC and Forest Service prior to Notice to Proceed issuance for the respective construction segment. SDG&E shall provide the CPUC and Forest Service with subsequent amendments to the SWPPP as part of SDG&E's weekly compliance reports. In weekly construction compliance reports, SDG&E shall note when Storm Water Construction Site Inspection Report Forms have been posted to the Storm Water Multiple Application and Report Tracking System (SMARTS) following storm events.	The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e., SWPPP preparation). The geotechnical investigations will result in approximately 0.8 acre in ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre and During	N/A
Hydrology and Water Quality	HYD-02a	01	Water Supply Plan	For water that is to be purchased from one or more public or private water/utility district(s), private landowners, or from tribes, SDG&E shall provide to the CPUC written documentation from such district(s) and/or landowners indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The documentation shall also indicate the type of water (potable or reclaimed) and the specific source of the water (groundwater well or surface diversions). The sources and amounts of water to be obtained by SDG&E shall be documented in a Water Supply Plan (WSP) to be submitted to the CPUC prior to notice to proceed for each project component.	The Water Supply Plan was approved by the USFS on June 28, 2016 and by the CPUC on August 11, 2016. An updated plan without references to specific transmission lines was submitted to the CPUC and USFS on March 8, 2017, and no approval was necessary. An updated plan with three additional water sources was submitted to the CPUC and USFS on April 7, 2017, and no approval was necessary.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	HYD-02b	01	Groundwater Evaluation	For identified water sources that derive their water supply from groundwater, SDG&E shall commission a groundwater study by a registered/certified hydrogeologist, as reviewed and approved by CPUC, to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources and to verify that the proposed source is capable of supplying the amount of water needed. The groundwater study shall evaluate whether the volume and duration of the proposed groundwater use would exceed County of San Diego thresholds for impacts with respect to groundwater supply and well interference. If the evaluation indicates the potential for significant impacts, the registered/certified hydrogeologist shall recommend feasible mitigation measures (e.g., a groundwater monitoring program) to avoid exceeding applicable thresholds. The groundwater evaluation shall be provided along with the documentation of purchased water sources, and the CPUC shall not authorize construction of the project unless such documentation have been provided by SDG&E and approved by CPUC. If the evaluation finds that impacts cannot be avoided given the volume and duration of the proposed groundwater use, the CPUC will not authorize use of the water source and shall require SDG&E to seek other viable sources of water.	Live Oak Springs Water District. SDG&E submitted the resume for a registered/certified hydrogeologist on September 27, 2016. The CPUC approved the hydrogeologist on September 27, 2016. The final Live Oak Springs Water District Groundwater Evaluation was submitted to the CPUC for approval on March 22, 2017. The CPUC approved the evaluation on March 30, 2017. An updated Water Supply Plan that includes the Live Oak Springs Water District was submitted to the CPUC and USFS on April 7, 2017, and no approval was necessary.	Pre	N/A
Hydrology and Water Quality	HYD-04	01	Access Road Condition Evaluation and Repair Design Report	Planned grading and repair activities along SDG&E exclusive-use access roads that a) exceed grades of 15% (over a minimum distance of 100 feet), b) are within RCAs, or c) are anywhere within a sediment-sensitive watershed (as defined by the SWRCB) shall be evaluated by a qualified professional (e.g., PG, PE, or CEG contracted by SDG&E and reviewed and approved by the CPUC and the Forest Service) prior to initiating construction on the associated segment, who will identify areas experiencing chronic erosion and drainage issues. At a minimum, segments shall include, but are not limited to, the following: <ul style="list-style-type: none"> - TL626 south of Eagle Creek Road and north of Boulder Creek Road - TL625 in the Vicinity of Barber Mountain Road - TL625 north of Lyons Valley Road and south of Carveacre Road - C442 east of Oak Valley and south of I-8, on the western flanks of Long Peak - Short segments of TL629 on either side of Cameron Valley and east of Pine Valley. The qualified professional shall design an engineered solution(s) to be implemented within the existing access roadway disturbance area in accordance with Forest Service standards, as described in Forest Service Handbook 2509.22 (Section 12.2), for each area determined to experience chronic erosion and/or drainage issues prior to beginning work on those facilities associated with the problematic access road. The designed solution(s) shall be included into the approved project to ensure the avoidance or minimization of substantial damage or soil loss along the identified road segments. Examples of such solutions could include, but are not limited to the following: - Crowning road sections with gentle slopes to prevent standing water on the road - Outsloping roads at 3%-5% wherever possible - Where required for proper maneuvering and safety, insloping roads at 3-5% into properly designed ditches - Installing rolling dips, ditch relief culverts, and/or water bars at intervals appropriate for the road-grade and the soil erosivity - Minimizing the number of water crossings, and maintaining crossings as close to a 90-degree angle as possible to the streambed. - Constructing perennial and seasonal/ephemeral stream crossings so as not to change the cross-sectional area of the stream channel or impede fish migration. - Constructing perennial and seasonal/ephemeral stream crossings with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap and/or gabions) - Surfacing roads with erosion-resistant materials such as rock or asphalt concrete. The Access Road Condition Evaluation and Repair Design Report shall identify locations, if any, where no feasible and/or effective solutions can be implemented to adequately handle runoff or comply with Forest Service soil and water quality management standards as contained in Forest Service Handbook 2509.22 (Section 12.2). The report will be updated for each construction segment according to SDG&E's final construction schedule. In these locations, the qualified professional shall recommend options for access road removal (i.e., requiring access by helicopter) or realignment (e.g., to achieve a lower slope) that would still achieve project objectives. Construction of each segment shall not proceed until the report section pertaining to that segment has been reviewed and approved by CPUC and Forest Service. In the event there are disputes regarding specific problem locations, CPUC and Forest Service will allow construction to proceed on those portions of the construction segment not impacted by access roads requiring evaluation under this measure; however, SDG&E shall not work in areas under dispute until resolution is achieved. 	The Access Road Condition and Evaluation Report was approved by the CPUC on August 18, 2016 and by the USFS on August 19, 2016. An Access Road Condition and Evaluation Report with updated attachments is not required for the geotechnical investigations along this component; instead, if applicable, it will be submitted in support of the future NTP Request for reconstruction of C440.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	HYD-06	02	Creek Crossing	Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. SDG&E shall develop a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan for this work in accordance with MM-HYD-8. Additionally, SDG&E shall implement the following measures during horizontal boring (jack-and-bore) operations and shall be included in the HDD Contingency Plan:1 Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. 2 Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention). 3 Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times. 4 Within 24 hours following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful. SDG&E shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. SDG&E shall implement all pre and post-construction conditions identified in the permits issued.	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable to this component.	Pre and During	N/A
Hydrology and Water Quality	HYD-07	01	HDD Contingency Plan	If horizontal directional drilling is to be used during construction, SDG&E shall prepare a Horizontal Directional Drill (HDD) Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the Stormwater Pollution Prevention Plan. The Jack-and-Bore HDD Contingency Plan shall be submitted to the CPUC, Forest Service, Bureau of Indian Affairs, and ACOE 60 days prior to construction.	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable to this component.	Pre and During	N/A
Hydrology and Water Quality	HYD-07	02	HDD Contingency Plan	SDG&E shall obtain the required permits prior to conducting work associated with jack-and-bore/horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. The applicant shall implement all pre-and post-construction conditions identified in the permits issued for the jack-and-bore/horizontal directional drilling.	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable to this component.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Land Use and Planning	LU-01	01	Construction Notification Plan	<p>Prepare Construction Notification Plan. Forty-five (45) days prior to construction of the first segment, the project applicant shall prepare and submit a Construction Notification Plan to the appropriate land use jurisdiction agency for approval. The plan will be updated with additional information 45 days before construction of each additional segment. The plan shall identify the procedures that will be used to inform private landowners, schools, and agencies with authority over recreational areas/facilities of the location and duration of construction; identify approvals that are needed prior to posting or publication of construction notices; and include text of proposed public notices and advertisements. The plan shall address at a minimum the following components:</p> <p>Public notice mailer. A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties and other sensitive land uses. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. The project applicant shall mail the notice to all residents or property owners within 1,000 feet of project components and to all land use agencies having jurisdiction over a recreation area/facility located within 1,000 feet of a project component. If construction delays of more than 30 days occur, an additional notice shall be prepared and distributed. To facilitate access to properties obstructed by construction activities, the project applicant shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.</p> <p>Newspaper/website advertisements. Fifteen (15) days prior to construction of any project component, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins, and on the relevant websites of jurisdictional agencies. The Forest Supervisor, District Rangers, and Public Affairs Officer of the Cleveland National Forest shall also be notified. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction.</p> <p>Public venue notices. Thirty (30) days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, trailheads, informational kiosks, and other public venues applicable to the electrical facility under construction to inform affected residents and recreationists of the purpose and schedule of construction activities.</p> <p>Public liaison person and toll-free information hotline. The project applicant shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. The project applicant shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.</p>	The Construction Notification Plan was approved by the USFS on June 16, 2016 and by the CPUC on June 17, 2016. An updated Construction Notification Plan will be submitted prior to the geotechnical investigations. The public venue notice, public mailer, and newspaper ads will be submitted to the CPUC and USFS for approval prior to the geotechnical investigations. The public venue notice for C440 will be posted at various locations adjacent to the sites 30 days prior to the geotechnical investigations. Posting of the public venue notices will be documented in an email to the CPUC and the USFS prior to the geotechnical investigations. The public mailer will be sent out at least 15 days prior to the geotechnical investigations. The certification of mailing will be submitted to the CPUC and the USFS prior to the geotechnical investigations. The newspaper advertisement will run in various newspapers at least 15 days prior to the geotechnical investigations.	Pre	Pending
Land Use and Planning	LU-02	01	TL626 and C442 Land Management Plan	If the Forest Service selects to leave TL626 or C442 in place, it would have to approve a project-specific CNF Land Management Plan Amendment contemporaneously with the decision to authorize the MSUP and pole replacement project. The project-specific plan amendment would amend the Land Management Plan to allow project-specific exemptions for inconsistencies with the CNF Land Management Plan land use zones and standards.	C440 is not listed in the measure; therefore, this measure is not applicable.	Pre	N/A
Land Use and Planning	LU-03	01	Reduce Land Use Conflicts	At least Ninety (90) days prior to completing final transmission line design for the approved route, the project applicant shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided 30 days in which to identify conflicts with any planned development on the subject property and to work with the project applicant to identify potential reroutes of the alignment that would be mutually acceptable to the project applicant and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. The project applicant shall endeavor to accommodate these reroutes to the extent that they are feasible and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.	C440 is not listed in the measure; therefore, this measure is not applicable.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Land Use and Planning	LU-04	01	County Roadways	Prior to construction, for any structure or object that is placed in, under, or over any portion of a county roadway, SDG&E shall obtain, from the San Diego County Director, Department of Public Works (DPW), a written encroachment permit in accordance with Section 71 (Highway and Traffic) of the San Diego County code of Regulatory Ordinances.	Prior to conducting the geotechnical investigations, SDG&E will obtain an encroachment permit from the County of San Diego to work on county roadways.	Pre	Pending
Noise	APM-NOI-01	01	Construction Schedule Notification	SDG&E will provide notice of the construction schedule to all property owners within 300 feet of the Proposed Action by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipated completion date, and hours of operation, as well as a telephone number to call with questions or complaints during construction.	This measure will be satisfied through the implementation of MM LU-01 and in accordance with the Construction Notification Plan.	Pre and During	Pending
Public Health and Safety	PHS-01	01	Contractor Training	San Diego Gas & Electric (SDG&E) shall provide written documentation that all staff, including contractor, and subcontractor project personnel, have received training regarding the appropriate work practices necessary to effectively implement hazardous materials procedures and protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures.	All construction personnel will receive the Worker Environmental Awareness Program training immediately prior to beginning work on the Project. The Worker Environmental Awareness Program training will include the appropriate work practices and hazardous materials protocol. Sign-in sheets will be submitted with the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented Immediately Prior to Construction
Public Health and Safety	PHS-02	02	Hazardous Materials BMPs	SDG&E will be required to complete a Spill Response and Notification Plan for agency approval before commencing construction.	The Spill Response and Notification Plan was approved by the USFS on July 21, 2016 and by the CPUC on July 18, 2016.	Pre	Complete
Public Health and Safety	PHS-03	02	Blasting Procedures	In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions: -The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by San Diego Gas & Electric (SDG&E) or SDG&E's contractor. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey.	Blasting will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Public Health and Safety	PHS-03	04	Blasting Procedures	- The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the Blasting Guidance Manual of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement. - The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed pole locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. The applicant, general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.	Blasting will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Public Health and Safety	PHS-04	01	Soil and Groundwater Contamination Training	Prior to construction, all San Diego Gas & Electric (SDG&E), contractor, and subcontractor project personnel anticipated to work between poles Z173105 and Z173109 shall receive training regarding the location of suspected soil and groundwater contamination along TL629 between poles Z173105 and Z173109, and will be instructed to avoid any ground disturbance in the area.	Poles Z173105 through Z173109 are not located along C440; therefore, this measure does not apply to this component.	Pre and During	N/A
Public Health and Safety	PHS-07	01	Conduct Geotechnical Investigations	The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet California Building Code (CBC), CPUC General Order 95, and Electric Power Research Institute (EPRI) Moment Foundation Analysis and Design parameters shall be incorporated into the project designs.	This NTP request is for geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A

Location: Geotech C440 Phase 1

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	PSU-01	01	AT&T Commitments	Prior to receiving a Notice to Proceed with construction along each of the proposed power line replacement projects, SDG&E shall provide to the CPUC and Forest Service written commitment from AT&T confirming that AT&T facilities that are co-located on the proposed power line replacement projects will be relocated to SDG&E's new facilities. Facilities will be transferred in a manner that avoids interruptions of telecommunications services to the greatest degree possible. The timing of the relocation activities will be reviewed and approved by both the CPUC and Forest Service.	Pole replacement will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre	N/A
Recreation	REC-01	01	Gate Plan	To deter unauthorized access to specially designated or restricted areas via SDG&E access roads authorized by the MSUP, the project applicant shall submit a plan and schedule for gate (or other barriers, such as pipe rails, where appropriate) installation to the Forest Service for approval. Gates will meet Forest Service engineering standards, and designs will be approved by the Forest Service prior to installation. In addition, appropriate deterrence signage approved by the Forest Service shall be installed on gates to SDG&E access roads. Maintenance of gates and signage shall be the responsibility of the project applicant.	The Gate Plan was approved by the USFS on August 25, 2016. Gate installation is not required for geotechnical investigations; instead, if applicable, it will be submitted in support of the future NTP Request for reconstruction of C440.	Pre, During, and Post	N/A
Transportation and Traffic	APM-TRANS-06	01	Coordinate with Local Air Traffic and FAA	SDG&E will coordinate flight patterns with local air traffic control and the Federal Aviation Administration prior to construction to prevent any adverse impacts due to increased air traffic.	Helicopters will not be used to conduct the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A

Location: Geotech C449

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Visual	VIS-01	01	Scenery Conservation Plan	SDG&E shall file with the CPUC a Scenery Conservation Plan that is approved by the Forest Service and provided to other applicable jurisdictional agencies for review and comment. Each 69 kV power line or 12 kV distribution line segment will be covered under an individual section of the plan, and each section will be reviewed and approved by the appropriate agencies prior to any ground-disturbing activities for the specific segment. The purpose of this plan is to identify and implement specific actions that will minimize the project's visual disturbance to the naturally established scenery. Specific actions shall also be identified and implemented for individual poles to protect existing views from established scenic vistas and roadways located outside of the CNF. Power and distribution line support towers shall be designed to minimize their visual prominence and contrast to the natural landscape. Individual poles anticipated to create adverse effects to scenic vistas and/or particularly noticeable visual contrast in existing views shall be designed, located, shaped, textured, and/or screened as necessary to minimize their visual contrast, blend and complement the adjacent forest and community character. Methods such as limiting the number of climbing pegs and identifying less visually intrusive pole markings for high voltage lines, consistent with CPUC requirements, shall be considered. SDG&E shall also be required to provide photorealistic visual simulations of typical proposed designs that include design features that may be incorporated into poles identified for visual treatment to demonstrate the effectiveness of such features in reducing visual contrast and prominence as viewed from sensitive viewsheds.	Pole replacement will not occur during the geotechnical investigations (i.e., geotechnical borings and seismic surveys) along this component; therefore, this measure is not applicable.	Pre and During	N/A
Visual	VIS-02	01	CNF Land Management Plan Amendment	If the Forest Service selects to fire harden TL626, TL629, TL6923 or C157 or relocate TL626 (Options 1,2,3a,3b,4 and 5, it would have to approve a project-specific CNF Land Management Plan Amendment contemporaneously with the decision to authorize the MSUP and pole replacement project. The project-specific plan amendment would amend the Land Management Plan to allow project-specific exemptions for inconsistencies with the CNF Land Management Plan scenic integrity objectives.	C449 was not identified in the Final EIR/EIS or ROD as conflicting with the Scenic Integrity Objectives established in the 2005 Land Management Plan or the 2014 Land Management Amendment for the CNF; therefore, this measure is not applicable.	Pre	N/A
Visual	VIS-02	02	CNF Land Management Plan Amendment	SDG&E would be required to compensate the Forest Service for the loss in scenic quality associated with the negative scenery effects that are inconsistent with the LMP scenic integrity objectives. Compensation shall be accomplished through agency approved scenery restoration activities, fee-payment for scenery restoration projects, or preservation of comparable lands.	C449 was not identified in the Final EIR/EIS or ROD as conflicting with the Scenic Integrity Objectives established in the 2005 Land Management Plan or the 2014 Land Management Amendment for the CNF; therefore, this measure is not applicable.	Pre	N/A

Measure Category	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	APM-BIO-02	01	Plant and Wildlife Surveys	All work areas will be surveyed for special-status plant and wildlife species by a qualified biologist prior to the commencement of construction in accordance with SDG&E's pre-activity survey report requirements.	A Pre-Activity Study Report is not required, per SDG&E's Subregional NCCP protocols, because all geotechnical investigations will occur along access roads or previously disturbed areas. Nonetheless, a CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre	N/A
Biological Resources	APM-BIO-05	01	Stringing Sites	Stringing site locations are designed with a preference toward placement within roadways, where possible, to minimize additional potential impacts from grading and vegetation removal that may otherwise be required if these stringing sites were required to be located in vegetated, off-road areas.	No stringing sites are required for the geotechnical investigations along this component; therefore, this measure is not applicable.	Design	N/A
Biological Resources	APM-BIO-06	01	Implement NCCP in Laguna Mountains Skipper Habitat	Although Laguna Mountains Skipper is not covered under SDG&E's Natural Community Conservation Plan (NCCP), SDG&E will utilize NCCP protocols 1, 2, 3, 5, 7, 8, 10, 11, 13, 14, 17, 24, 25, 29, 34, 35, 41, 44, 48, 54, 55, and 57 in United States (U.S.) Forest Service- (Forest Service-) modeled critical habitat and occupied habitat to minimize any potential impacts to this species. In addition, SDG&E will have a qualified biologist survey any Laguna Mountains Skipper habitat prior to work.	No Laguna Mountains skipper modeled critical habitat or occupied habitat occurs within this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	APM-BIO-07	01	CA Spotted Owl Consultation	If California spotted owls are identified in the vicinity of proposed work areas during the pre-activity survey process, SDG&E will consult with the appropriate resource agencies to avoid impacts to nesting California spotted owl.	No suitable habitat for California spotted owls was identified during a 2010 pre-activity habitat assessment of C449. Therefore, there is no potential for this species to occur along this component, and this measure is not applicable.	Pre	N/A
Biological Resources	APM-BIO-08	01	Design New Poles with Avian Protection Practices	SDG&E will design and install all new poles to conform to the guidelines in the Suggested Practices for Avian Protection on Power Lines Manual developed by the Avian Power Line Interaction Committee.	No new poles are being designed as part of the geotechnical investigations for this component; therefore, this measure is not applicable.	Design and During	N/A
Biological Resources	APM-BIO-09	01	Bat Roost Coordination	If active bat roosts are identified during pre-activity surveys, SDG&E will coordinate with the U.S. Fish and Wildlife Service/California Department of Fish and Wildlife as appropriate.	Prior to commencing the geotechnical investigations, a qualified biologist will survey for active bat roosts. In the event that an active bat roost is identified in the vicinity of the proposed geotechnical investigation site, SDG&E will consult with the USFWS and CDFW.	Pre	Pending
Biological Resources	BIO-01	01	Work Limits	Confine all construction and construction-related activities to the minimum necessary area. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas identified in Section B, Project Description, Table B-7. The limits of approved work spaces (not including existing access roads) shall be delineated with stakes and/or flagging prior to beginning work in any area. In areas where SDG&E will not work within exclusive-use easements, SDG&E will post temporary signage along approved work limits, indicating that the area is an active construction/work zone and access is temporarily restricted. An environmental monitor shall complete weekly observations to ensure that all work is completed within the approved work limits, and in the event any work occurs beyond the approved limits, it shall be reported by SDG&E's compliance team in accordance with the Mitigation Monitoring, Compliance, and Reporting program (see Section H).	The approximate locations of the geotechnical investigations will be identified on a Sensitive Resources Map, which will be submitted to the CPUC and USFS on May 26, 2017.	Pre and During	Pending

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-02	01	Contractor Training	Conduct contractor training for all construction staff. Prior to construction, all developer, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to implement the mitigation measures and comply with environmental regulations, including plant and wildlife species avoidance, impact minimization, and best management practices. Sign-in sheets and hard hat decals shall be provided that document contractor training has been completed for construction personnel.	All personnel conducting geotechnical investigations will attend the required Worker Environmental Awareness Program training immediately prior to working on the Project and will receive a hard-hat decal to indicate that they have attended the training. Training sign-in sheets will be submitted with the Weekly Environmental Compliance Report during construction.	Pre and During	To Be Implemented Immediately Prior to Construction
Biological Resources	BIO-03	01	Biological Monitoring	Conduct biological construction monitoring. An authorized biological monitor must be present at the construction sites during all initial ground-disturbing and vegetation-removal activities in undeveloped areas (i.e., not roads or existing developed areas). The monitor shall survey the construction project footprint and surrounding areas for compliance with all environmental specifications. Weekly biological construction monitoring reports shall be prepared and submitted to the appropriate permitting and responsible agencies through the duration of the ground-disturbing and vegetation-removal construction phase. Monthly biological construction monitoring reports shall be prepared and submitted through the duration of project construction to document compliance with environmental requirements.	Biological monitors approved by the CPUC and the USFS will conduct monitoring during initial ground disturbance. Biological monitors that were identified as "Trainees Only" by the USFS will only conduct monitoring on private lands or under the supervision of a fully approved biologist on USFS-managed lands. Biological monitoring results will be included in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-04	01	Habitat Restoration	Restore all temporary construction areas pursuant to a Habitat Restoration Plan (HRP). All previously undisturbed temporary work areas not subject to long-term use or ongoing vegetation maintenance shall be revegetated with native species characteristic of the adjacent native vegetation communities in accordance with a Habitat Restoration Plan as described in SDG&E NCCP 7.2 Habitat Enhancement Measures. Restoration techniques may include the following: hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. The HRP shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. At the completion of project construction, all construction materials shall be completely removed from the site. Topsoil located in areas to be restored will be conserved and stockpiled during the excavation process for use in the restoration of sites requiring restoration. Wherever possible, vegetation will be left in place or mowed, and not grubbed, or the NCCP, to avoid excessive root damage and allow for natural regrowth following construction. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas does not meet success criteria per the HRP, the temporary impact shall be considered a permanent impact and compensated accordingly (see MM BIO-5). Specifically, the HRP will include the following sections: Introduction; Mitigation Measure Summary; Plan Objectives; Plan Implementation; Pre-Construction Documentation; Clearing and Grading; Cleanup; Seeding; Other Planting Methods- Schedule-Restoration; Seeding and Planting- Restoration Monitoring; Monitoring Success Criteria, and Remedial Measures; Reporting; Completion of Restoration Program- Reference. The HRP will be prepared by a habitat restoration specialist (approved by the CPUC and Forest Service) who will oversee implementation of the HRP. The HRP shall be submitted to the CPUC and the Forest Service for review and approval prior to implementation.	Geotechnical investigations along this component will occur within existing disturbed areas and access roads, and no impacts to vegetation or habitat will occur; therefore, this measure is not applicable.	Pre, During, and Post	N/A
Biological Resources	BIO-06	01	Fire Prevention	Implement fire prevention best management practices during construction and operation activities. Fire prevention best management practices shall be implemented during construction and operation of the project as specified by the Construction Fire Prevention/Protection Plan (to be developed as required under MM FF-1 and MM FF-2). The PALS system will be followed for any work on National Forest System lands.	The Construction Fire Prevention/Protection Plan was approved by the USFS on June 17, 2016 and the CPUC on July 29, 2016. An updated plan was submitted to the CPUC and USFS on September 30, 2016; however, approval was not required. Fire prevention BMPs will be implemented during the geotechnical investigations in accordance with the plan.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-07	01	SWPPP	Prepare and implement a Stormwater Pollution Prevention Plan. Prepare a Stormwater Pollution Prevention Plan pursuant to the specifications described in APM HYD-05 and MM HYD-1.	The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e., SWPPP preparation). The geotechnical investigations will result in approximately 0.1 acre of temporary ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion, and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre and During	N/A
Biological Resources	BIO-09	01	Pole Replacement with RCAs	SDG&E shall identify all proposed replacement pole locations within the vicinity of Riparian Conservation Areas (RCAs) to identify those poles and associated access roads that can be reasonably relocated outside these areas and consult with the Forest Service for authorization of their relocation and proposed placement. These Forest Service requirements will only apply to National Forest System lands.	Pole replacement will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-10	01	Limit Impacts to Jurisdictional Features	Limit temporary and permanent impacts to jurisdictional features to the minimum necessary. Formal jurisdictional delineation and permits are required prior to construction for all work areas located within or adjacent to jurisdictional wetlands and waters. The applicant shall obtain and implement the terms and conditions of agency permit(s) for unavoidable impacts to jurisdictional wetlands and waters. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas within the approved work limits and delineated with stakes and/or flagging that shall be maintained throughout the construction period. The project applicant shall obtain applicable permits and provide evidence of permit approval, which may include but not be limited to a Clean Water Act Section 404 Permit from the ACOE, a Clean Water Act Section 401 water quality certification from the RWQCB, and a Section 1602 Streambed Alteration Agreement with the California Department of Fish and Wildlife for impacts to jurisdictional features prior to project construction. These permits are anticipated to be approved under the MSUP. The terms and conditions of these authorizations shall be implemented.	Geotechnical investigations will not be conducted within jurisdictional features, and no permits will be obtained; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-10	02	Limit Impacts to Jurisdictional Features	In addition, prior to conducting work or establishing the final design of a selected transmission line alignment, a planning-level assessment of aquatic resources will be conducted to identify the environmentally preferred alternative. The assessment will include review of the National Hydrography Dataset, National Wetland Inventory, U.S. Geological Survey topographic maps, high-resolution digital photography, and necessary field checking. Once the environmentally preferred alternative is identified, a jurisdictional delineation will be conducted of the selected transmission line to ensure the final design is the Least Environmentally Damaging Practicable Alternative (LEDPA) and is in compliance with the Clean Water Act (CWA) Section 404(b)(1) Guidelines. The CWA Section 404 permit authorization will be obtained for any discharges into waters of the United States and the widths of access roads and construction of bridges over waters of the United States will be minimized to the extent feasible.	Geotechnical investigations will not be conducted within jurisdictional features, and no permits will be obtained; therefore, this measure is not applicable.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
Biological Resources	BIO-11	01	Habitat Creation, Enhancement, Preservation, or Restoration	Implement habitat creation, enhancement, preservation, and/or restoration pursuant to a wetland mitigation plan to ensure no net loss of jurisdictional waters and wetlands. Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination of habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation, enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications, and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, hand-seeding, imprinting, and soil and plant salvage (as discussed in SDG&E NCCP 7.2 Habitat Enhancement Measures). Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the appropriate agency, the temporary impact shall be considered a permanent impact and compensated accordingly. All habitat creation and restoration used as mitigation for the proposed project on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation for the proposed project on private lands shall include long-term management and legal protection assurances.	Geotechnical investigations will not be conducted within jurisdictional waters or wetlands; therefore, there will be no net loss of jurisdictional waters or wetlands and mitigation is not required.	Pre and During	N/A
Biological Resources	BIO-12	01	Drainage Crossing Requirements	Where drainage crossings are unavoidable, construct access roads at right angles to drainages. Unless not possible due to existing landforms or site constraints, access roads shall be built perpendicular to drainages to minimize the impacts to these resources and prevent impacts along the length of jurisdictional features.	No new access roads will be constructed for the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-13	01	Special Status Plant Surveys	Conduct preconstruction surveys for special status plants in areas not accessible during previous rare plant surveys. Prior to construction, San Diego Gas & Electric (SDG&E) shall retain a qualified biologist approved by the California Public Utilities Commission (CPUC) and Forest Service to conduct a focused rare plant survey on site during the time period when the previously described special-status plant species are detectable. Table D.4-123 in EIR/EIS describes the 40 blooming plant species that shall be surveyed, months they shall be surveyed (i.e., blooming periods), and the TL/circuits on which they occur. Cuyamaca cypress and tecate cypress can be surveyed anytime of the year. Surveys shall be conducted in areas not included during rare plant surveys (see Chambers Group Inc. 2012b, Table 2). Of the 40 species described, there is some potential for 8 of these species to occur in vernal pools, including California Orcutt grass*, Cuyamaca larkspur, long-spined spineflower, Orcutt's brodiaea*, San Diego goldenstar*, San Diego thornmint*, Santa Lucia dwarf rush, and variegated dudleya*. These 8 species are also included in Table D.4-12. These species will also be protected through implementation of, the SDG&E Natural Community Conservation Plan (NCCP), and through avoidance of impacts to wetlands (MM BIO-10 through MM BIO-12). Locations of special-status plants shall be identified and inventoried. The qualified biologist shall supervise construction activities within the vicinity of areas identified as having special-status plant species. Impacts to special-status plant species shall be avoided to the maximum extent possible by installing fencing or flagging, marking areas to be avoided in construction areas, and limiting work in areas identified as having special-status plant species to periods of time when the plants have set seed and are no longer growing. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation as determined by the qualified biologist and approved by the CPUC. Alternatively, if the special-status plant species in question is a Covered Species within the SDG&E NCCP, mitigation consistent with measures established in the NCCP shall be provided. The results of the focused plant surveys and measures outlined above that will be implemented by SDG&E in the event special-status plant species are identified within the biological survey area shall be provided to CPUC and Forest Service. CPUC and Forest Service will review and approve the rare plant survey report and recommended avoidance or mitigation approached prior to issuance of a notice to proceed.	Pre-construction surveys for special-status plants are not necessary, per SDG&E's Subregional NCCP protocols, because all geotechnical borings will be conducted entirely within the limits of existing roads or within previously disturbed areas. Seismic refraction surveys will be conducted within previously disturbed areas to the maximum extent feasible. Nonetheless, a CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-14	01	Special Status Plant Fencing/Flagging	Install fencing or flagging around identified special-status plant species populations in the construction areas. Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for special-status plant species for all construction areas. All of the special-status plant locations shall be recorded using a Global Positioning System (GPS), which will be used to site the avoidance fencing/flagging. Special-status plant species shall be avoided to the maximum extent possible by all construction activities. The boundaries of all special-status plant species to be avoided shall be delineated in the field with clearly visible fencing or flagging. The fencing/flagging shall be maintained for the duration of project construction activities.	Geotechnical investigations will not impact special-status plant species due to micro-siting in existing disturbed areas and access roads. A Sensitive Resources Map depicting special-status plant occurrences in the area and locations of fencing/flagging will be submitted to the CPUC and USFS on May 26, 2017. Special-status plant species will be fenced or flagged immediately prior to conducting the geotechnical investigations along this component. A CPUC- and USFS-approved biological monitor will be present to monitor initial ground-disturbing activities.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-15	01	Special-Status Plant Compensation	Implement special-status plant species compensation. Impacts to special-status plant species shall be maximally avoided. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the Forest Service. Land preservation must be completed within 36 months of initiation of construction. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites. Any salvage and relocation plans shall be approved by the permitting agencies prior to project construction. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. Success criteria and monitoring shall also be included in the plan. If salvage and relocation is not possible to the satisfaction of the Forest Service, off-site land preservation shall be required. Forest Service requirements will only apply to National Forest System lands.	The Special-Status Plant Species Salvage and Relocation Plan was approved by the CPUC on August 22, 2016 and by the USFS on August 24, 2016. Geotechnical investigations along this component will only occur within existing disturbed areas and access roads, and no impacts to special-status plant species will occur; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-16	01	Special-Status Butterfly Fencing and Surveys	Install fencing or flagging around identified special-status butterfly host species populations in the construction areas and road maintenance. Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for larvae or adult (nectar sources or egg laying sources) plant for the following species: Hermes copper butterfly, Laguna Mountains skipper, or Quino checkerspot butterfly. These host plants include Cleveland's horkelia, western plantain, bird's beak, owl's clover, California buckwheat, and spiny redberry. Similar protective measures for special-status plants (identified in MM BIO-13 and MM BIO-14) shall be implemented. Occupied or suitable habitat for these species shall be avoided to the greatest extent feasible. In addition to the implementation of SDG&E NCCP Operational Protocols, site visits will be conducted prior to construction and road maintenance. Prior to site visits, a digital database of known host plant populations will be reviewed. Site visits will verify the known locations of host plant populations in the area and, if present, avoid those locations.	Geotechnical investigations along this component will only occur within existing disturbed areas and access roads. There is no suitable or occupied habitat in roads or disturbed areas for special-status butterfly species on this component.	Pre	N/A
Biological Resources	BIO-17	01	Butterfly Protocol Surveys	Conduct protocol surveys for Quino checkerspot, Hermes copper, and Laguna Mountains skipper butterflies within 1 year prior to project construction activities in occupied habitat. The project proponent shall conduct preconstruction protocol surveys for Quino checkerspot butterfly, Laguna Mountains skipper, and Hermes copper butterfly within 1 year prior to construction activities (or unless coordination with the U.S. Fish and Wildlife Service determines that SDG&E's low-effect habitat conservation plan (HCP) for Quino (SDG&E 2007) adequately protects the species, historical surveys are adequate, or as superseded by consultation with the USFWS and Forest Service) in any project construction area known to support the species. Surveys shall be conducted by a qualified biologist in accordance with the most currently accepted protocol survey methods for Quino checkerspot and Laguna Mountains skipper. This includes current habitat assessment and reporting requirements. Results shall be reported to USFWS and the CDFW South Coast Regional Office within 45 days of the completion of the survey. Surveys for Hermes copper butterfly shall follow County of San Diego Guidelines. A qualified biologist shall survey all potential habitat for Hermes copper which includes any woody (mature) spiny redberry shrub with California buckwheat within 15 feet. California buckwheat without spiny redberry nearby is not considered suitable habitat. If California buckwheat is within 15 feet of a mature spiny redberry shrub, additional vegetation within 15 feet should also be considered potential habitat for Hermes copper. All butterfly protocol survey data shall be provided to the CDFW South Coast Regional Office.	Geotechnical investigations along this component will only occur within existing disturbed areas and access roads. There is no suitable or occupied habitat in roads or disturbed areas for special-status butterfly species on this component.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-18	01	Butterfly Habitat Compensation	Provide compensation for temporary and permanent impacts to Occupied or Critical Habitat for Quino checkerspot, Hermes copper, and Laguna Mountains skipper butterfly habitat through conservation and/or restoration. Temporary and permanent impacts to Quino checkerspot butterfly and Laguna Mountains skipper shall be compensated through a combination of habitat compensation and habitat restoration at a minimum of a 2:1 mitigation ratio for occupied non-critical habitat and a minimum of a 3:1 mitigation ratio for critical habitat, or as required by the permitting agencies. Forest-related impacts will be mitigated at the ratios provided above on Forest Service lands and in coordination with the Forest Service. Habitat compensation shall be accomplished through U.S. Fish and Wildlife Service-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting Quino checkerspot butterfly or Laguna Mountains skipper as appropriate. Mitigation for Hermes copper butterfly shall consist of 1:1 replacement of temporary impacts to occupied habitat, where host plants are impacted, and at a 2:1 ratio where permanent impacts occur. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as habitat compensation provided that the restoration effort is demonstrated to be feasible and implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to project construction. All habitat compensation and restoration used as mitigation for the proposed project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the proposed project on private lands shall include long-term management and legal protection assurances.	Geotechnical investigations will occur in existing disturbed areas and access roads. There is no critical or occupied habitat in roads or disturbed areas for special-status butterfly species on this component. Therefore, no compensation will be required.	Pre and During	N/A
Biological Resources	BIO-19	01	Avoid Butterfly Host Plants	Final design of power and distribution line and access roads through Quino checkerspot and Laguna Mountains skipper critical habitat and Hermes copper occupied habitat shall maximally avoid host plants for these species. The final design of the proposed project through Quino checkerspot, Hermes copper, and Laguna Mountains skipper butterfly habitat shall maximally avoid and minimize habitat resources used by these species based on safety and other superseding regulatory requirements. The applicant shall explore alternate tower locations, reduced road widths, reduced vegetation maintenance, and other design modifications to minimize impacts to host plants in critical habitat for these species, and it shall obtain agency approval of the final design through this area. If impacts are not avoided, compensatory mitigation, as described per MM BIO-18, will be required. This measure shall apply to all locations that have been designated as critical or occupied habitat for these species.	The geotechnical investigations do not include the final design for C449; therefore, this measure is not applicable.	Pre	N/A
Biological Resources	BIO-20	01	Obtain Wildlife Permits	Obtain and implement the terms of agency permit(s) with jurisdiction federal or state-listed species. In addition to the obligation of the Forest Service consulting with the USFWS on the project, if federally listed wildlife species not already covered by SDG&E's NCCP (including any species that may be listed prior to issuance of the PTC and MSUP) may be impacted by the project, the Forest Service will initiate a Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS). If state-listed wildlife species not already covered by SDG&E's NCCP may be impacted by the project, SDG&E will seek a Section 2081 permit (or consistency determination) from the California Department of Fish and Wildlife (CDFW). In addition, take authorization for golden eagles will require coordination with the USFWS and CDFW. SDG&E shall implement and/or adhere to all USFWS recommendations stipulated by the Forest Service in the Special Use Permit; SDG&E shall implement and/or adhere to all requirements in CDFW permit. SDG&E will not need a Section 2081 permit if the potentially impacted species or action is covered by SDG&E's NCCP. The Forest Service is required to consult with the USFWS for their federal action (approving the MSUP) as identified in Section A, Table A-3.	The Project is covered by SDG&E's Subregional NCCP and Quino checkerspot butterfly Low-Effect Habitat Conservation Plan. A Biological Opinion was issued for the Project on November 19, 2015. Conservation measures from the Biological Opinion will be implemented prior to and during the geotechnical investigations as necessary.	Pre	To Be Implemented During Construction
Biological Resources	BIO-20	02	Obtain Wildlife Permits	When conducting work within designated critical habitat for the Quino checkerspot butterfly, SDG&E shall implement all applicable protocols to avoid and minimize impacts to this species defined in the SDG&E Low-Effect Habitat Conservation Plan for Quino.	There is no critical habitat for Quino checkerspot butterfly along this component; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-20	03	Obtain Wildlife Permits	Additionally, when working within designated critical habitat for Laguna Mountains skipper, SDG&E shall implement all impact minimization measures for Laguna Mountains skipper (USFS 2006c), consistent with USFWS direction (USFWS 2006, 2007), which includes:1. Prior to project work, a qualified biologist shall identify all LMS habitat (to include host plant and nectar sources) within 10 meters of the proposed project(s) ROW. SDG&E facilities that are within designated critical habitat for Laguna Mountains skipper are shown on USFWS Critical Habitat maps (71 FR 74592–74615). During any maintenance activities, a qualified biologist will be present to monitor work and ensure that Laguna Mountains skipper habitat is not affected.2. Chipping of vegetation shall not be allowed in known or potential Laguna Mountains skipper habitat. This includes the ROW within or adjacent to (within 10 meters) known or potential Laguna Mountains skipper habitat. Potential habitat shall be identified by the qualified biologist either during the host plant/nectar source survey or some time previous to the onset of ROW work. 3. Vehicles or tracked equipment shall only be allowed on existing roads or trails when operating within or adjacent to Laguna Mountains skipper habitat. Prior to operation of vehicles on existing roads or trails, a qualified biologist will ensure that the road or trail itself does not contain host plants or nectar sources. 4. Any project that may adversely affect the Laguna Mountains skipper shall require consultation with the U.S. Fish and Wildlife Service. If the NCCP is not used, then formal consultation with the USFWS and CDFW will need to occur to determine the need for take permits	There is no critical habitat for Laguna Mountains skipper along this component. Therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-21	01	Sensitive Butterfly Species Construction Measures	If construction occurs in occupied and/or suitable habitat for sensitive butterfly species, SDG&E will implement the following: Quino checkerspot: SDG&E will comply with the avoidance and minimization measures outlined in the existing Low-Effect Habitat Conservation Plan for Quino checkerspot butterfly.	No occupied or suitable habitat for Quino checkerspot butterfly exists along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-21	02	Sensitive Butterfly Species Construction Measures	Hermes copper: Because this species is not state- or federally listed, the following will only be required for activities: While performing construction activities within the flight season, a qualified biological monitor will be on-site for all project activities to assure that both impacts to host plants and direct take of Hermes copper butterflies are avoided to the greatest extent feasible. The biological monitor may temporarily stop work in the event a Hermes copper butterfly is observed within the immediate construction area (i.e., the flagged work areas currently being used for construction activities.)	Geotechnical investigations along this component will only occur within existing disturbed areas and access roads. There is no suitable or occupied habitat in roads or disturbed areas for Hermes copper butterfly on this component.	Pre and During	N/A
Biological Resources	BIO-21	03	Sensitive Butterfly Species Construction Measures	Laguna Mountains skipper butterfly: Construction will occur outside of the flight season OR at least 10 meters (33 feet) away from all host plant locations. If there is a known or newly discovered occurrence during the flight season, construction shall be prohibited within 1 kilometer (0.6 mile) of the occurrence or unless coordination with the U.S. Fish and Wildlife Service determines construction activities may commence. The Laguna Mountains skipper flight season occurs from April to July.	No occupied or suitable habitat for Laguna Mountains skipper occurs along this component; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-22	01	Biological Monitoring	Biologists will monitor construction activities. San Diego Gas & Electric (SDG&E) shall retain qualified biologists and other qualified resource specialists, as necessary, to monitor all project construction activities that could reasonably result in impacts to biological resources. All monitor qualifications shall be reviewed and approved by the California Public Utilities Commission (CPUC) prior to conducting monitoring activities along the right-of-way. Monitors shall be responsible for preconstruction surveys, work area delineations (i.e., staking, flagging, etc.) to comply with SDG&E’s Natural Community Conservation Plan, on-site monitoring, and documentation of violations and compliance. Monitors shall also delineate pre-determined access routes using markers or signs and ensure the maintenance of markers or signs on a regular basis.	CPUC- and USFS-approved biological monitors will be monitoring during the geotechnical investigations. Biological monitors that were identified as “Trainees Only” by the USFS will only conduct monitoring on private lands or under the supervision of a fully approved biologist on USFS-managed lands. Biological monitoring results will be submitted within the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-24	01	Speed Limits	Enforce speed limits in and around all construction areas. Vehicles shall not exceed 15 miles per hour on unpaved roads (as stated in SDG&E NCCP 7.1 Operational Protocols) and the right-of-way accessing the construction site or 10 miles per hour during the night.	Documentation that the MMCRP has been incorporated into the construction compliance contracts was provided to the CPUC and USFS on July 20, 2016. Documentation that MM BIO-24 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. Project biological monitors will enforce speed limits along this component during the geotechnical investigations, and compliance with this measure will be documented in the Weekly Environmental Compliance Report submitted to the CPUC and USFS.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-26	01	Prohibit Littering	Prohibit littering and remove trash from construction areas daily. Littering shall not be allowed by the project personnel. All food-related trash and garbage shall be removed from the construction sites on a daily basis.	Documentation that the MMCRP was incorporated into the construction compliance contract was provided to the CPUC and USFS on July 20, 2016. Documentation that MM BIO-26 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. This measure will be implemented during the geotechnical investigations along this component and documented in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-27	01	Prohibit Harassment of Wildlife	Prohibit the harm, harassment, collection of, or feeding of wildlife. Project personnel shall not harm, harass, collect, or feed wildlife. No pets shall be allowed in the construction areas.	Documentation that the MMCRP was incorporated into the construction compliance contract was provided to the CPUC and USFS on July 20, 2016. Documentation that MM BIO-27 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. This measure will be implemented during the geotechnical investigations along this component and documented in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-28	02	Implement Bird Protection Measures	To avoid avian disturbance by construction activities, an Avian Protection Plan, including a Nesting Bird Management Plan, shall be developed in coordination with the Wildlife Agencies prior to project onset to develop measures based on site specific conditions to protect birds. This Avian Protection Plan shall be implemented by SDG&E and their biological monitors with oversight by the CPUC and the Forest Service. The Plan shall include procedures to allow the Wildlife Agencies open communication with the biological monitor(s) and access to scientific data collected that will be electronically stored in a database approved by the CPUC, the Forest Service, and the Wildlife Agencies. Between February and September during project construction, SDG&E shall provide a monthly summary of nesting bird monitoring activities and at the completion of each nesting season shall provide an evaluation of the data collected to date as specified in the Nesting Bird Management Plan. B. The Project's transmission pole and line design may have an impact on certain raptor species. Consequently, in addition to the construction activities, the Plan shall address avian mortality related to line strikes through the use of adaptive management (i.e., measures to make the lines more visible to the suite of species affected), in response to reported mortalities. C. The Avian Protection Plan shall include the following measures: a. Compliance with the Migratory Bird Treaty Act b. Compliance with Fish and Game Code Sections 3503, 3503.5, and 3511c. Activities shall be prohibited with i. Approximately 0.25 mile of California spotted owl active nest sites (or activity centers) during the breeding season (February 1through August 15) unless surveys confirm that California spotted owls are not nesting within the 0.25- mile radius; ii. 500 feet of raptor and owl active nests; iii. 500 feet of federally and/or state-listed birds active nests; iv. 250 feet of occupied burrowing owl burrows from February 1 to August 31 or within 160 feet from September 1 through January 31; and. 150 feet of non-listed birds and as specified in the avian protection plan for other bird species of concern.	The APP/NBMP has been developed in coordination with the Wildlife Agencies. Approval of the APP/NBMP was received from the CDFW on May 18, 2016; from the USFWS on June 20, 2016; from the USFS on June 30, 2016; and from the CPUC on July 19, 2016. The APP/NBMP will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-28	03	Implement Bird Protection Measures	If year-round burrowing owls are identified and there would only be temporary indirect impacts, then work may continue through coordination with the CDFW and monitoring. If it appears that the burrowing owls may be directly impacted, then a relocation plan will be developed for the specific burrowing owl(s). This plan would include the methods to relocate, location of the relocation, and post-relocation monitoring. Active relocation and banding of birds is not required. Similar buffers will be utilized for non-Forest Service lands as specified in the Avian Protection Plan and Nesting Bird Management Plan. "Nest" is defined as a structure or site under construction or preparation, constructed or prepared, or being used by a bird for the purpose of incubating eggs or rearing young. Perching sites and screening vegetation are not part of the nest. "Active nest" is defined as once birds begin constructing, preparing, or using a nest for egg-laying. A nest is no longer an "active nest" if abandoned by the adult birds or once nestlings or fledglings are no longer dependent on the nest.	Burrowing owls were not detected during surveys for this component. If burrowing owls are identified in the vicinity of the geotechnical investigation sites during the general nesting bird surveys, the required procedures will be followed in accordance with MM BIO-28 and the CDFW-approved APP/NBMP.	Pre and During	To Be Implemented Immediately Prior to Construction
Biological Resources	BIO-28	04	Implement Bird Protection Measures	d. Apply APLIC Measures. Specific APLIC measures to be applied must, at a minimum, must allow the circuits to meet National Electric Safety Code (NESC) requirements and should provide general information on specialized construction designs to meet APLIC standards. In particular, conductor separation between the energized and grounded hardware should meet the current state of the art requirements to protect species up to California condor. If appropriate separation is not feasible, then the energized parts and hardware should be covered. As appropriate, bird diverters should be deployed as well.	APLIC measures included in the APP do not apply to geotechnical investigations; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-28	05	Implement Bird Protection Measures	D. The database shall include special features to accommodate additional variables (covariate) information requested by the Wildlife Agencies designed for this Project that will provide data which will contribute to the scientific standards of effective avian avoidance measures. In order to help evaluate buffer effectiveness, nests shall be monitored on a daily basis by a qualified biologist during disturbance and-related activities (i.e., brushing, tree trimming, ground-disturbing activities, mechanized or manual construction/removal/installation, and restoration activities) and every 4 days following disturbance until nest fates have been determined for entry into the database. Daily nest monitoring will be conducted by a qualified biologist, from as far away as possible while still being able to observe activity. The biologist need not observe the actual contents of the nest, but may extrapolate status based on adult behaviors. Actual surveys of the nest contents must not occur more than weekly (i.e., allow at least 7 days between nest visits) and visits should be very brief, paths should go by the nest without stopping if possible, the biologist should not touch leaves or branches, and should take a new route each time they pass by the nest. If brown-headed cowbirds or potential nest predators (e.g., scrub jays, crows, ravens) are in the area, then the visit should be postponed until they are gone.	CPUC- and USFS-approved avian biologists will conduct surveys and nest monitoring during the geotechnical investigations in compliance with MM BIO-28. Avian biologists that were conditionally approved by the CPUC will only conduct monitoring on private lands under the supervision of a fully approved avian biologist. The Avian Reporting Database is described in Section 8 - Avian Reporting Database of the approved NBMP. Nests will be monitored in accordance with the approved NBMP. SDG&E will provide database access to the wildlife agencies as stipulated in the measure.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-28	06	Implement Bird Protection Measures	At a minimum, the plan(s) shall include the following sections: Plan Objectives; Applicable Mitigation Measures; Environmental Awareness Program; Existing Avian Resources; Construction Process and Timing (related to avian resource protection); Specific APLIC measures to be Applied; Nest Survey and Monitoring Method; Surveyor Experience and Training; Nesting Bird Survey Protocol; Standard Buffer Distances as determined in consultation with Wildlife Agencies; Protections of Listed Species, Raptors, and Eagles; Nest Monitoring Data Collection; Avian Reporting System; Nest Monitoring Log to include fates of all nests monitored; Reporting including update of database accessible to Wildlife Agencies; Nest Management; Nesting Habitat Reduction; Nesting Deterrent; Nest Removal; Risk Assessment and Mortality Reduction; Quality Control and Effectiveness; Avian Enhancement; Key Resources; Prior to the start of construction and implementation, SDG&E shall submit the plan to the U.S. Fish and Wildlife Service, CDFW, CPUC, and Forest Service for review and approval.	The APP/NBMP has been developed in coordination with the Wildlife Agencies. Approval of the APP/NBMP was received from the CDFW on May 18, 2016; from the USFWS on June 20, 2016; from the USFS on June 30, 2016; and from the CPUC on July 19, 2016. The APP/NBMP will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-28	07	Implement Bird Protection Measures	E. In order to identify locations of current bald eagle (<i>Haliaeetus leucocephalus</i>), golden eagle (<i>Aquila chrysaetos</i>), California spotted owl (<i>Strix occidentalis</i>), American peregrine falcon (<i>Falco peregrinus anatum</i>), or federally and/or state-listed or fully protected bird nests, the monitoring biologists will coordinate with the U.S. Forest Service (Forest Service), U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife (CDFW) to ensure that the most up to date information is made available to monitoring biologists. If work will be conducted within a 1 mile buffer of historic and currently known nests during the bald or golden eagle breeding season (December 15 through July 31), SDG&E will survey the historic and currently known nests sites to determine if they are active. If nests are determined to be active, then work within 1 mile of active nests shall be rescheduled until after the completion of nesting activity at those nests. Alternatively, SDG&E may plan work activities to occur outside of the 1 mile buffers during the breeding season.	Coordination with the USFS, CDFW, and USFWS is ongoing, in accordance with this measure. These species are addressed in Section 7.2 Protections of Listed Species, Raptors, and Eagles of the approved NBMP. During the geotechnical investigations along this component, nest surveys and nest buffers will be implemented in accordance with the approved NBMP.	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-30	01	Bat Protection	(A) Townsend's bat protection measures Prior to work being conducted, measures will be employed to protect (a) Townsend's bat and (b) bats in general. Prior to work being conducted, qualified biologists will conduct a literature search for potential roost sites and follow-up surveys for Townsend's big-eared bat maternity roosts within 500 feet of project lines during the breeding/pupping season (April-mid-September). Typical Townsend's big-eared bat roosts occur in mines, caves, buildings, long and dark culverts, and older bridges (pre-1960) (Pierson and Rainey 1994). If any potential structures or features for Townsend's big-eared bat are present within the project area they shall be surveyed.	A literature review for potential Townsend's big-eared bat roosts was conducted in 2017. Follow-up surveys will be conducted by CPUC- and USFS-approved bat biologists prior to conducting the geotechnical investigations. The bat roost assessment and focused survey report will be submitted to the CDFW prior to conducting the geotechnical investigations. Documentation of the submittal to the CDFW will be provided to the CPUC and USFS.	Pre	Pending
Biological Resources	BIO-30	02	Bat Protection	Inspections of potential roosts shall be conducted using an appropriate combination of visual and acoustic survey techniques (including structure inspection, sampling, and/or exit counts) for areas that may be directly or indirectly impacted by the project. Where active roosts are located, reporting shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number present at the time of visit (count or estimate); 3) the location, amount, distribution, and age of all droppings shall be described and pinpointed on a map; and 4) the type of roost (i.e., night roost – rest at night while out feeding vs. day roost – maternity colony) must also be clearly stated. All survey results, including field data sheets, shall be provided to the CDFW South Coast Regional Office. Locations of all roosts shall be kept confidential to protect them from disturbance. If non-maternity roosts are identified, the CDFW will be notified and consulted. If maternity roosts are present, the CDFW and CPUC will be notified and no work will occur within 500 feet of the roost location until the end of the pupping season or until the roost is determined to be unoccupied by Townsend's big-eared bat. For the protection of young (i.e., unable to fly) and hibernating adults all project-related activities shall be avoided where roosts are present during the winter and spring. No restrictions apply to project vehicle traffic on existing access roads, or to construction activity that occurs outside of the pupping season.	If potential roosts are discovered during the literature review and focused surveys, follow-up inspections will be conducted by CPUC- and USFS-approved bat biologists in areas that may be directly or indirectly impacted by the Project prior to conducting the geotechnical investigations. All survey results, including field data sheets, will be provided to the CDFW, and submittal documentation will be provided to the CPUC and USFS.	Pre and During	Pending

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-30	03	Bat Protection	(B) General bat protection measures for other bat species Prior to work being conducted, qualified biologists will conduct a literature search for known general bat roost sites and follow-up surveys within 100 feet of project lines during the breeding/pupping season (April–mid-September). In general, bat species may roost in rock outcrop, dense tree canopies, flaking tree bark, snags, bridges, mine, caves, flumes, and buildings. If any known sites for bats in general are present within the project area they shall be surveyed.	A literature review for potential general bat roosts was conducted in 2017. Follow-up surveys will be conducted by CPUC- and USFS-approved bat biologists prior to conducting the geotechnical investigations. The bat roost assessment and focused survey report will be submitted to the CDFW prior to conducting the geotechnical investigations work. Documentation of the submittal to the CDFW will be provided to the CPUC and USFS.	Pre	Pending
Biological Resources	BIO-30	04	Bat Protection	Inspections of known roosts shall be conducted using an appropriate combination of visual and acoustic survey techniques (including structure inspection, sampling, and/or exit counts) for areas that may be directly or indirectly impacted by the project. Bats shall be identified to the most specific taxonomic level possible. Where active bat roosts are located, reporting shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map); 2) the number of bats present at the time of visit (count or estimate); 3) each species of bat present shall be named (include how the specific was identified); 4) the location, amount, distribution, and age of all bat droppings shall be described and pinpointed on a map; and 5) the type of roost (i.e., night roost – rest at night while out feeding vs. day roost – maternity colony) must also be clearly stated. All survey results, including field data sheets, shall be provided to the CDFW South Coast Regional Office. Locations of all roosts shall be kept confidential to protect them from disturbance.	If potential roosts are discovered during the literature review and focused surveys, follow-up inspections will be conducted by CPUC- and USFS-approved bat biologists in areas that may be directly or indirectly impacted by the Project prior to conducting the geotechnical investigations. All survey results, including field data sheets, will be provided to the CDFW, and submittal documentation will be provided to the CPUC and USFS.	Pre	Pending
Biological Resources	BIO-30	05	Bat Protection	If potential roosts are determined to be present then the roosts must be analyzed further to determine if Townsend’s big-eared bats are present and if maternity roosts are present. If maternity roosts are present, the CDFW and CPUC will be notified and no work will occur within 100 feet of the roost location until the end of the pupping. For the protection of young (i.e., unable to fly) and hibernating adults, all project-related activities shall be avoided where roosts are present during the winter and spring. No restrictions apply to project vehicle traffic on existing access roads, or to construction activity that occurs outside of the pupping season.	If Townsend’s big-eared bat roosts are identified within 500 feet of C449 and/or maternity bat roosts are identified within 100 feet, then construction exclusion buffers will be established during pupping season or until the roost is determined to be unoccupied. If bat roosts are identified in the Project vicinity, the CPUC and CDFW will be notified.	Pre and During	Pending
Biological Resources	BIO-31	01	Kangaroo Rat Survey	Biologists will conduct surveys for Stephens’ kangaroo rat. In locations where Stephens’ kangaroo rat habitat assessments were not accessible during the 2010 surveys (including the extensive parcels of land westward of Santa Ysabel owned by a single landowner – Map Pages MS-016-025 [Chambers Group Inc. and SJM Biological Consultants 2012; Appendix A] and the large parcel immediately south of Old Highway 80 and southward of southern end of Kitchen Creek Road [Map Page MS-069 [Chambers Group Inc. and SJM Biological Consultants 2012]; Appendix A]), a pedestrian preconstruction survey for potentially occupied suitable habitat (open habitat with suitable soils, slope, and kangaroo rat burrows) and follow-up trapping to confirm species, will be conducted by a California Public Utilities Commission (CPUC)-approved biologist to assess the potential areas for Stephens’ kangaroo rat to occur within SDG&E’s proposed project area.	No SKR habitat occurs along this Project component; therefore, this measure is not applicable.	Pre	N/A
Biological Resources	BIO-31	02	Kangaroo Rat Survey	Any burrows, utilized habitat, or signs of Stephens’ kangaroo rat utilizing a habitat (e.g., track prints) will be flagged for avoidance during construction activities. The monitoring biologist shall halt construction activities if he or she determines that the construction activities are disturbing Stephens’ kangaroo rat occupied habitat. If Stephens’ kangaroo rat occupied habitat cannot be avoided during construction, the monitoring biologist shall make recommendations to ensure minimal impacts to the existing Stephens’ kangaroo rat habitat and burrows during construction. Recommendations may include, but are not limited to: (1) re-routing access to the project work area for complete avoidance of Stephens’ kangaroo rat occupied habitat; or (2) placement of dirt piles or sediment to avoid occupied burrows. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the CPUC.	No SKR habitat occurs along this Project component; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-33	01	Arroyo Toad Focused Surveys	Focused surveys for arroyo toad shall be conducted. Prior to initiating construction, all riverbed areas within 1,000 feet of construction sites and access roads shall be surveyed during the appropriate season (December 1 through July 31) for arroyo toad. The applicant shall contract with a qualified biologist to conduct focused surveys for arroyo toad. If arroyo toads are detected in or adjacent to the project site, no work will be authorized within 500 feet of occupied habitat until the project applicant receives concurrence from the U.S. Fish and Wildlife Service (USFWS) that work may proceed.	C449 is not listed in the measure; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-33	02	Arroyo Toad Focused Surveys	If arroyo toads are detected in or adjacent to the project site, the project applicant shall develop and implement a monitoring plan that includes the following measures, in consultation with the USFWS: [Refer to MM BIO-33 in the MMCRP for all 16 monitoring plan specifications]	This measure is only applicable to C157; therefore, this measure is not applicable.	Pre and During	N/A
Biological Resources	BIO-33	03	Arroyo Toad Focused Surveys	On Forest Service lands, occupied arroyo toad breeding habitat will be mitigated at a 3:1 ratio; occupied arroyo toad upland burrowing habitat will be mitigated at 2:1; and unoccupied arroyo toad habitat (or designated critical habitat) will be mitigated at 2:1. In addition, a Forest Service consultation will be conducted to verify limited operating periods for arroyo toad are defined.	This measure is only applicable to C157; therefore, this measure is not applicable.	Pre and Post	N/A
Cultural and Paleontological Resources	APM-CUL-01	01	Archaeological and Paleontological Trainings	Prior to construction, all SDG&E, contractor, and subcontractor personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including the potential for exposing subsurface cultural, archaeological, and paleontological resources and how to recognize possible buried resources. This training will include a presentation of the procedures to be followed upon discovery or suspected discovery of cultural and archaeological materials, including Native American remains and their treatment, as well as of paleontological resources.	The Worker Environmental Awareness Program training includes a presentation on the applicable environmental laws and regulations, including the potential for exposing subsurface cultural, archaeological, and paleontological resources and how to recognize possible buried resources. This training includes a presentation of the procedures to be followed upon discovery or suspected discovery of cultural and archaeological materials, including Native American remains and their treatment, as well as of paleontological resources. All construction personnel will attend the Worker Environmental Awareness Program training immediately prior to beginning work on the Project.	Pre and During	To Be Implemented Immediately Prior to Construction
Cultural and Paleontological Resources	APM-CUL-02	01	Pre-Construction Cultural Surveys	Intensive pedestrian surveys will be conducted prior to construction in those areas within the ROWs for which initial survey access was not granted to determine the potential for impacts to cultural resources in these areas. Where possible, engineering design will be re-evaluated to determine whether facilities can be relocated to avoid any cultural resources identified from these additional surveys. If relocation is not feasible, APM CUL-03 will be implemented to minimize impacts to sensitive cultural resources.	Cultural resources surveys encompassing the majority of the geotechnical investigation sites along C449 were completed during the initial survey in 2011 (Schaefer and Williams, 2011: The 2011 [Revised 2013] Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland National Forest Transmission and Distribution Line Increased Fire Safety Project in support of the Proponent's Environmental Assessment), as well during the 2015, 2016, and 2017 surveys. Geotechnical investigations will not impact known cultural resources due to micro-siting in the field. In addition, a cultural and monitor will be present as needed.	Pre	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological Resources	APM-CUL-03	01	Designate ESAs	All potentially National Register-eligible or archaeologically sensitive sites, as defined in the Cultural Resources Technical Report, that will not be directly affected by construction but are within 50 feet of replacement pole locations will be designated as Environmentally Sensitive Areas (ESAs). Potentially eligible resources include those that are recommended eligible, as well as unevaluated sites. Protective fencing or other markers will be erected and maintained to protect these ESAs from inadvertent trespass for the duration of construction in the vicinity. ESAs will not be signed or marked as cultural, historical, or archaeological resources.	Any ESAs located within 50 feet of the geotechnical investigation sites will be delineated with protective fencing prior to conducting geotechnical investigations along this component.	Pre and During	To Be Implemented Immediately Prior to Construction
Cultural and Paleontological Resources	APM-CUL-06	01	Cultural Resources Treatment Plan	In consultation with the Forest Service HPM, BIA Archaeologist, the Tribes, and the SHPO, SDG&E will develop a Cultural Resources Treatment Plan that includes procedures for protection and avoidance, evaluation and treatment, and the curation of any potentially register-eligible cultural materials. Specific protective measures, including a monitoring program, will be defined in the Cultural Resources Treatment Plan to reduce potential adverse impacts on unknown cultural resources to less-than-significant levels.	The required components of the Cultural Resources Treatment Plan were incorporated into the Historic Properties Management Plan. The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016, and by the CPUC and SHPO on August 26, 2016. Completion of MM CUL-01 satisfies the requirements of this APM.	Pre	Complete
Cultural and Paleontological Resources	APM-CUL-08	04	Paleontological Monitoring	The paleontological monitor will follow the procedures outlined in the Paleontological Monitoring and Treatment Plan, which will be prepared and will include information regarding pre-construction field surveys, construction personnel training, necessary permits, research design, monitoring methodology, fossil discovery and recovery protocols, fossil preparation and curation procedures, and the preparation of a final monitoring report.	Based on guidance from the San Diego Natural History Museum's Department of PaleoServices, the diameter of the geotechnical drill is too small to necessitate the need for paleontological monitoring given the very small amount of earthwork involved, and seismic refraction surveys do not include earthwork; therefore, paleontological monitoring is not required for the geotechnical investigations.	Pre and During	N/A
Cultural and Paleontological Resources	CUL-01	01	Cultural Resource Management	In order to avoid adverse effects to historic properties, SDG&E will implement a comprehensive approach to cultural resource management consistent with any project specific Programmatic Agreement developed between the federal agencies and the SHPO. The comprehensive approach will include, at a minimum, the following elements:	The Project's Programmatic Agreement was finalized in February 2016. The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016. The Project's Historic Properties Management Plan outlines procedures for cultural resource management consistent with this measure, and it will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological Resources	CUL-01	02	Cultural Resource Management	1a. – Inventory and evaluate cultural resources in the Final Area of Potential Effect (APE). Prior to any ground disturbing activities, SDG&E will complete inventories within the APE and submit the results of those inventories for approval by the CPUC and federal agencies. These surveys shall supplement surveys done for the EIR/EIS and will satisfy Section 106 requirements.	Cultural resources surveys were completed in 2011 by ASM Affiliates, Inc. (Schaefer and Williams, 2011: The 2011 [Revised 2013] Inventory, Evaluation and Treatment of Cultural Resources in the Cleveland National Forest Transmission and Distribution Line Increased Fire Safety Project in support of the Proponent's Environmental Assessment) and in 2015, 2016, and 2017. Subsequent surveys have been conducted for geotechnical investigation sites that were not reviewed during the original surveys. The results of these surveys will be submitted to the CPUC and USFS prior to conducting the geotechnical investigations. The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre	Pending
Cultural and Paleontological Resources	CUL-01	03	Cultural Resource Management	1b. – Avoid and protect potentially significant resources. Where feasible, complete avoidance of impacts shall be the preferred strategy. Where the federal agencies and CPUC decide that cultural resources cannot be avoided, they will be incorporated into a Historic Properties Management Plan (HPMP), as described below.	Impacts to known cultural and historical resources will be avoided during the geotechnical investigations along this component. Maps identifying all ESAs to be flagged and avoided during the geotechnical investigations will be provided to the CPUC and USFS prior to conducting the geotechnical investigations.	Pre and During	Pending
Cultural and Paleontological Resources	CUL-01	04	Cultural Resource Management	1c. – Develop and Implement Historic Properties Management Plan. After completing the inventory and avoidance phase of site design, SDG&E will prepare and submit for approval an HPMP to avoid or mitigate identified potential impacts.	The Historic Properties Management Plan was finalized on August 25, 2016, and was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre and During	Complete
Cultural and Paleontological Resources	CUL-02	01	Reduce Impacts to Historic Cabins	In order to reduce adverse effects and significant impacts to historic resources along C79, C440, and C442 as identified in Table D.5-12 of the EIR/EIS, the original exterior materials on the cabins shall not be removed, modified, or covered. If equipment attached to the cabins must be replaced, the equipment shall retain its original appearance in terms of materials and size. If this cannot be met, then a cultural monitor is required to be present during the replacement of the lines to minimize modifications to the cabin exteriors.	C449 is not listed in the measure; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological Resources	CUL-03	01	Implement CRTR Recommendations	<p>During construction of the proposed power line replacement projects, all measures as identified in Tables 3 and 6 for TL625, Tables 9 and 11 for TL626, Tables 14 and 17 for TL629, Table 20 for TL682, Table 23 for TL6923, Table 26 for C78, Table 29 for C79, Table 31 for C157, Table 34 for C440, Table 37 for C442, and Table 40 for C449 of the Cultural Resources Technical Report prepared by ASM (ASM 2011) shall be implemented. All measures shall be implemented by a qualified archaeologist who is approved by the California Public Utilities Commission and Forest Service. Further, when on City-owned land (portions of C157, T625, and C449), the City's Land Development Manual – Historical Resource Guidelines per the San Diego Municipal Code, Chapter 14, Article 3, Division 2, Section 14.0201, shall be followed (http://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art03Division02.pdf).</p>	<p>The geotechnical investigations will be micro-sited and all geotechnical investigations are to be located outside of known cultural and historical resources. Monitoring and/or avoidance recommendations will be applied to geotechnical activities within the vicinity of nearby known resources to ensure no impacts occur. Documentation confirming the completion of monitoring will be provided to the CPUC and USFS in the Weekly Environmental Compliance Report. Resumes of archaeologists that will be implementing measures were submitted to the CPUC and the USFS on July 28, 2016. Approval of the archaeologists' qualifications was received from the CPUC on August 11, 2016 and from the USFS on August 12, 2016. Maps depicting the locations of cultural ESAs and ESA fencing will be provided to the CPUC and USFS prior to conducting the geotechnical investigations.</p>	Pre and During	Pending

Measure Category	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Fire Protection	FF-01	01	Fire Prevention/Protection Plan	SDG&E shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the U.S. Forest Service, Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of lead agencies. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the commenting agencies prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following:-Procedures for minimizing potential ignition, Vegetation clearing, Fuel treatment area establishment to Parking requirements, Smoking restrictions, Hot work restrictions- Red Flag Warning restrictions- Fire coordinator role and responsibility- Fire suppression equipment on site at all times work is occurring- Requirements of Title 14 of the California Code of Regulations, 918 "Fire Protection" for the private land portions- Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice 113-1 (July 2012)- Emergency response and reporting procedures- Emergency contact information- Worker education materials; kick-off and tailgate meeting schedules- Other information as provided by responsible and commenting agencies (as appropriate for each project). Additional restrictions will include the following: During the construction phase of the project, the applicant shall implement ongoing fire patrols. The applicant shall maintain fire patrols during construction hours and for 1 hour after end of daily construction and hotwork; Fire Suppression Resource Inventory – In addition to 14 CCR 918.1(a), (b), and (c), the applicant shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the Forest Service, BLM, BIA, SDRFPD, SDCFA, and CAL FIRE; During Red Flag Warning events, as issued daily by the National Weather Service in State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs), and when the Forest Service Project Activity Level (PAL) is "E" on Cleveland National Forest (CNF) (as appropriate), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under a Hot Work Procedure. The Hot Work Procedure will be in compliance with the applicable sections in NFPA 51-B "Fire prevention during welding, cutting, or other hot work" and CFC Chapter 26 "Welding and other Hot Work." The applicant and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF. All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area as soon as the fire is identified/discovered immediately upon ignition. Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crew members as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect. Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 50 feet of fire suppression equipment, as outlined in ESP 113.1. SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the responsible fire agencies for comment a minimum of 90 days prior to the start of any construction activities. The final plan will be approved by the responsible lead agencies with input from the fire and permitting agencies, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities. All construction work on the proposed power line replacement projects shall follow the Construction Fire Prevention/Protection Plan guidelines and commitments.	The Construction Fire Prevention/Protection Plan was approved by the SDCFA on December 2, 2015; by the SDRFPD, CAL FIRE, and the BLM on December 18, 2015; by the BIA on January 7, 2016; by the USFS on June 17, 2016; and by the CPUC on July 29, 2016. An updated plan was submitted to the CPUC and USFS on September 30, 2016, but no approval was required. The plan will be implemented during the geotechnical investigations along this component.	Pre and During	To Be Implemented During Construction
General	APM-GEN-06	01	Conduct Notifications	Prior to initiating construction, SDG&E will make all the appropriate and necessary notifications, including landowner notifications.	This measure will be satisfied through the implementation of MM LU-01 and in accordance with the Construction Notification Plan.	Pre	Pending
General	APM-GEN-07	01	Excavation Notification	SDG&E will notify the Underground Service Alert a minimum of 48 hours in advance of excavating or conducting other ground-disturbing activities in order to identify buried utilities. Exploratory excavations (potholing) will also be conducted to verify the locations of existing facilities in the field, if necessary.	This measure will be implemented immediately prior to ground disturbance as applicable.	Pre and During	To Be Implemented Immediately Prior to Construction
Hydrology and Water Quality	APM-HYD-04	01	Conduct Wetlands and Waters Surveys	Any areas not surveyed for potentially jurisdictional wetlands or waters due to limited access will be surveyed prior to the start of construction activities and potential impacts will be assessed and the appropriate jurisdictional permits will be obtained as needed.	All geotechnical investigation sites will be located within existing access roads or previously disturbed areas; therefore, no impacts to jurisdictional waters were identified and no permits are required.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	APM-HYD-05	01	SWPPP	SDG&E will prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will identify BMPs based on its Water Quality BMPs Manual for each activity that has the potential to degrade surrounding water quality through erosion, sediment run-off, and other pollutants. These BMPs will then be implemented and monitored by a Qualified SWPPP Practitioner.	The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e. SWPPP preparation). The geotechnical investigations will result in approximately 0.1 acre in ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre and During	N/A
Hydrology and Water Quality	HYD-01	01	Erosion Control Plan/SWPPP	SDG&E shall develop and implement an Erosion Control Plan (ECP) for construction, operations, and maintenance activities in order to prevent and control soil erosion and gulying. The ECP shall include Forest Service best management practices specific to re-vegetation requirements (scarifying the soil, and fertilizing, seeding and/or mulching, as required to achieve proper post-construction site stabilization) and incorporate Construction General Permit SWPPP requirements for each construction segment as the SWPPP(s) for that segment are completed. Additionally, the ECP shall complement restoration goals and objectives identified in the Habitat Restoration Plan, as required under MM BIO-4. The ECP shall be updated for each construction segment and provided to the (CPUC) and the federal agencies for review and approval prior to each agency's Notice to Proceed issuance for that construction segment.	The Erosion Control Plan was approved by the CPUC and USFS on August 11, 2016. An updated Erosion Control Plan and SWPPP BMP attachment is not required for geotechnical investigations. The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e., SWPPP preparation). The geotechnical investigations will result in approximately 0.1 acre in ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre, During, and Post	To Be Implemented During Construction
Hydrology and Water Quality	HYD-01	02	Erosion Control Plan/SWPPP	As required by the Construction General Permit, SDG&E shall develop a Storm Water Pollution Prevention Plan (SWPPP) for the project or for individual construction segments, as required, to reduce soil erosion during construction. The SWPPP(s) and verification of submittal to the RWQCB shall be submitted to the CPUC and Forest Service prior to Notice to Proceed issuance for the respective construction segment. SDG&E shall provide the CPUC and Forest Service with subsequent amendments to the SWPPP as part of SDG&E's weekly compliance reports. In weekly construction compliance reports, SDG&E shall note when Storm Water Construction Site Inspection Report Forms have been posted to the Storm Water Multiple Application and Report Tracking System (SMARTS) following storm events.	The State Water Resources Control Board Construction General Permit requires coverage for ground-disturbing activities greater than one acre (i.e., SWPPP preparation). The geotechnical investigations will result in approximately 0.1 acre in ground-disturbing activities; therefore, preparation of a SWPPP is not required. Temporary erosion and sediment controls, good housekeeping, and pollution prevention BMPs will be implemented in accordance with the Erosion Control Plan.	Pre and During	N/A
Hydrology and Water Quality	HYD-02a	01	Water Supply Plan	For water that is to be purchased from one or more public or private water/utility district(s), private landowners, or from tribes, SDG&E shall provide to the CPUC written documentation from such district(s) and/or landowners indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The documentation shall also indicate the type of water (potable or reclaimed) and the specific source of the water (groundwater well or surface diversions). The sources and amounts of water to be obtained by SDG&E shall be documented in a Water Supply Plan (WSP) to be submitted to the CPUC prior to notice to proceed for each project component.	The Water Supply Plan was approved by the USFS on June 28, 2016 and by the CPUC on August 11, 2016. An updated plan without references to specific transmission lines was submitted to the CPUC and USFS on March 8, 2017, and no approval was necessary. An updated plan with three additional water sources was submitted to the CPUC and USFS on April 7, 2017, and no approval was necessary.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	HYD-02b	01	Groundwater Evaluation	For identified water sources that derive their water supply from groundwater, SDG&E shall commission a groundwater study by a registered/certified hydrogeologist, as reviewed and approved by CPUC, to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources and to verify that the proposed source is capable of supplying the amount of water needed. The groundwater study shall evaluate whether the volume and duration of the proposed groundwater use would exceed County of San Diego thresholds for impacts with respect to groundwater supply and well interference. If the evaluation indicates the potential for significant impacts, the registered/certified hydrogeologist shall recommend feasible mitigation measures (e.g., a groundwater monitoring program) to avoid exceeding applicable thresholds. The groundwater evaluation shall be provided along with the documentation of purchased water sources, and the CPUC shall not authorize construction of the project unless such documentation have been provided by SDG&E and approved by CPUC. If the evaluation finds that impacts cannot be avoided given the volume and duration of the proposed groundwater use, the CPUC will not authorize use of the water source and shall require SDG&E to seek other viable sources of water.	SDG&E commissioned a groundwater study of the Live Oak Springs Water District. SDG&E submitted the resume for a registered/certified hydrogeologist on September 27, 2016. The CPUC approved the hydrogeologist on September 27, 2016. The final Live Oak Springs Water District Groundwater evaluation was submitted to the CPUC for approval on March 22, 2017. The CPUC approved the Evaluation on March 30, 2017. An updated Water Supply Plan that includes the Live Oak Springs Water District was submitted to the CPUC and USFS on April 7, 2017, and no approval was necessary.	Pre	N/A
Hydrology and Water Quality	HYD-04	01	Access Road Condition Evaluation and Repair Design Report	Planned grading and repair activities along SDG&E exclusive-use access roads that a) exceed grades of 15% (over a minimum distance of 100 feet), b) are within RCAs, or c) are anywhere within a sediment-sensitive watershed (as defined by the SWRCB) shall be evaluated by a qualified professional (e.g., PG, PE, or CEG contracted by SDG&E and reviewed and approved by the CPUC and the Forest Service) prior to initiating construction on the associated segment, who will identify areas experiencing chronic erosion and drainage issues. At a minimum, segments shall include, but are not limited to, the following: - TL626 south of Eagle Creek Road and north of Boulder Creek Road - TL625 in the Vicinity of Barber Mountain Road - TL625 north of Lyons Valley Road and south of Carveacre Road - C442 east of Oak Valley and south of I-8, on the western flanks of Long Peak - Short segments of TL629 on either side of Cameron Valley and east of Pine Valley. The qualified professional shall design an engineered solution(s) to be implemented within the existing access roadway disturbance area in accordance with Forest Service standards, as described in Forest Service Handbook 2509.22 (Section 12.2), for each area determined to experience chronic erosion and/or drainage issues prior to beginning work on those facilities associated with the problematic access road. The designed solution(s) shall be included into the approved project to ensure the avoidance or minimization of substantial damage or soil loss along the identified road segments. Examples of such solutions could include, but are not limited to the following: - Crowning road sections with gentle slopes to prevent standing water on the road - Outsloping roads at 3%-5% wherever possible - Where required for proper maneuvering and safety, insloping roads at 3-5% into properly designed ditches - Installing rolling dips, ditch relief culverts, and/or water bars at intervals appropriate for the road-grade and the soil erosivity - Minimizing the number of water crossings, and maintaining crossings as close to a 90-degree angle as possible to the streambed. - Constructing perennial and seasonal/ephemeral stream crossings so as not to change the cross-sectional area of the stream channel or impede fish migration. - Constructing perennial and seasonal/ephemeral stream crossings with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap and/or gabions) - Surfacing roads with erosion-resistant materials such as rock or asphalt concrete. The Access Road Condition Evaluation and Repair Design Report shall identify locations, if any, where no feasible and/or effective solutions can be implemented to adequately handle runoff or comply with Forest Service soil and water quality management standards as contained in Forest Service Handbook 2509.22 (Section 12.2). The report will be updated for each construction segment according to SDG&E's final construction schedule. In these locations, the qualified professional shall recommend options for access road removal (i.e., requiring access by helicopter) or realignment (e.g., to achieve a lower slope) that would still achieve project objectives. Construction of each segment shall not proceed until the report section pertaining to that segment has been reviewed and approved by CPUC and Forest Service. In the event there are disputes regarding specific problem locations, CPUC and Forest Service will allow construction to proceed on those portions of the construction segment not impacted by access roads requiring evaluation under this measure; however, SDG&E shall not work in areas under dispute until resolution is achieved.	The Access Road Condition and Evaluation Report was approved by the CPUC on August 18, 2016 and by the USFS on August 19, 2016. An Access Road Condition and Evaluation Report with updated attachments is not required for the geotechnical investigations along this component; instead, if applicable, it will be submitted in support of the future NTP Request for reconstruction of C449.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	HYD-06	02	Creek Crossing	Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. SDG&E shall develop a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan for this work in accordance with MM-HYD-8. Additionally, SDG&E shall implement the following measures during horizontal boring (jack-and-bore) operations and shall be included in the HDD Contingency Plan:1 Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. 2 Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention). 3 Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times. 4 Within 24 hours following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful. SDG&E shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. SDG&E shall implement all pre and post-construction conditions identified in the permits issued.	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable to this component.	Pre and During	N/A
Hydrology and Water Quality	HYD-07	01	HDD Contingency Plan	If horizontal directional drilling is to be used during construction, SDG&E shall prepare a Horizontal Directional Drill (HDD) Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the Stormwater Pollution Prevention Plan. The Jack-and-Bore HDD Contingency Plan shall be submitted to the CPUC, Forest Service, Bureau of Indian Affairs, and ACOE 60 days prior to construction.	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable to this component.	Pre and During	N/A
Hydrology and Water Quality	HYD-07	02	HDD Contingency Plan	SDG&E shall obtain the required permits prior to conducting work associated with jack-and-bore/horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. The applicant shall implement all pre-and post-construction conditions identified in the permits issued for the jack-and-bore/horizontal directional drilling.	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable to this component.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Land Use and Planning	LU-01	01	Construction Notification Plan	<p>Prepare Construction Notification Plan. Forty-five (45) days prior to construction of the first segment, the project applicant shall prepare and submit a Construction Notification Plan to the appropriate land use jurisdiction agency for approval. The plan will be updated with additional information 45 days before construction of each additional segment. The plan shall identify the procedures that will be used to inform private landowners, schools, and agencies with authority over recreational areas/facilities of the location and duration of construction; identify approvals that are needed prior to posting or publication of construction notices; and include text of proposed public notices and advertisements. The plan shall address at a minimum the following components:</p> <p>Public notice mailer. A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties and other sensitive land uses. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. The project applicant shall mail the notice to all residents or property owners within 1,000 feet of project components and to all land use agencies having jurisdiction over a recreation area/facility located within 1,000 feet of a project component. If construction delays of more than 30 days occur, an additional notice shall be prepared and distributed. To facilitate access to properties obstructed by construction activities, the project applicant shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.</p> <p>Newspaper/website advertisements. Fifteen (15) days prior to construction of any project component, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins, and on the relevant websites of jurisdictional agencies. The Forest Supervisor, District Rangers, and Public Affairs Officer of the Cleveland National Forest shall also be notified. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction.</p> <p>Public venue notices. Thirty (30) days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, trailheads, informational kiosks, and other public venues applicable to the electrical facility under construction to inform affected residents and recreationists of the purpose and schedule of construction activities.</p> <p>Public liaison person and toll-free information hotline. The project applicant shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. The project applicant shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.</p>	The Construction Notification Plan was approved by the USFS on June 16, 2016 and by the CPUC on June 17, 2016. An updated Construction Notification Plan will be submitted prior to the geotechnical investigations. The public venue notice, public mailer, and newspaper ads will be submitted to the CPUC and USFS for approval prior to the geotechnical investigations. The public venue notice for C449 will be posted at various locations adjacent to the geotechnical investigation sites 30 days prior to the investigations. Posting of the public venue notices will be documented in an email to the CPUC and the USFS prior to the geotechnical investigations. The public mailer will be sent out at least 15 days prior to the geotechnical investigations. The certification of mailing will be submitted to the CPUC and the USFS prior to the geotechnical investigations. The newspaper advertisement will run in various newspapers at least 15 days prior to the geotechnical investigations.	Pre	Pending
Land Use and Planning	LU-02	01	TL626 and C442 Land Management Plan	If the Forest Service selects to leave TL626 or C442 in place, it would have to approve a project-specific CNF Land Management Plan Amendment contemporaneously with the decision to authorize the MSUP and pole replacement project. The project-specific plan amendment would amend the Land Management Plan to allow project-specific exemptions for inconsistencies with the CNF Land Management Plan land use zones and standards.	C449 is not listed in the measure; therefore, this measure is not applicable.	Pre	N/A
Land Use and Planning	LU-03	01	Reduce Land Use Conflicts	At least Ninety (90) days prior to completing final transmission line design for the approved route, the project applicant shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided 30 days in which to identify conflicts with any planned development on the subject property and to work with the project applicant to identify potential reroutes of the alignment that would be mutually acceptable to the project applicant and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. The project applicant shall endeavor to accommodate these reroutes to the extent that they are feasible and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.	C449 is not listed in the measure; therefore, this measure is not applicable.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Land Use and Planning	LU-04	01	County Roadways	Prior to construction, for any structure or object that is placed in, under, or over any portion of a county roadway, SDG&E shall obtain, from the San Diego County Director, Department of Public Works (DPW), a written encroachment permit in accordance with Section 71 (Highway and Traffic) of the San Diego County code of Regulatory Ordinances.	C449 is not listed in the measure; therefore, this measure is not applicable.	Pre	N/A
Noise	APM-NOI-01	01	Construction Schedule Notification	SDG&E will provide notice of the construction schedule to all property owners within 300 feet of the Proposed Action by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipated completion date, and hours of operation, as well as a telephone number to call with questions or complaints during construction.	This measure will be satisfied through the implementation of MM LU-01 and in accordance with the Construction Notification Plan.	Pre and During	Pending
Public Health and Safety	PHS-01	01	Contractor Training	San Diego Gas & Electric (SDG&E) shall provide written documentation that all staff, including contractor, and subcontractor project personnel, have received training regarding the appropriate work practices necessary to effectively implement hazardous materials procedures and protocols and to comply with the applicable environmental laws and regulations, including, without limitation, hazardous materials spill prevention and response measures.	All construction personnel will receive the Worker Environmental Awareness Program training immediately prior to beginning work on the Project. The Worker Environmental Awareness Program training will include the appropriate work practices and hazardous materials protocol. Sign-in sheets will be submitted with the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented Immediately Prior to Construction
Public Health and Safety	PHS-02	02	Hazardous Materials BMPs	SDG&E will be required to complete a Spill Response and Notification Plan for agency approval before commencing construction.	The Spill Response and Notification Plan was approved by the USFS on July 21, 2016 and by the CPUC on July 18, 2016.	Pre	Complete
Public Health and Safety	PHS-03	02	Blasting Procedures	In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions: -The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by San Diego Gas & Electric (SDG&E) or SDG&E's contractor. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey.	Blasting will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Public Health and Safety	PHS-03	04	Blasting Procedures	- The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the Blasting Guidance Manual of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement. - The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed pole locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. The applicant, general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.	Blasting will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A
Public Health and Safety	PHS-04	01	Soil and Groundwater Contamination Training	Prior to construction, all San Diego Gas & Electric (SDG&E), contractor, and subcontractor project personnel anticipated to work between poles Z173105 and Z173109 shall receive training regarding the location of suspected soil and groundwater contamination along TL629 between poles Z173105 and Z173109, and will be instructed to avoid any ground disturbance in the area.	Poles Z173105 through Z173109 are not located along C449; therefore, this measure does not apply to this component.	Pre and During	N/A
Public Health and Safety	PHS-07	01	Conduct Geotechnical Investigations	The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet California Building Code (CBC), CPUC General Order 95, and Electric Power Research Institute (EPRI) Moment Foundation Analysis and Design parameters shall be incorporated into the project designs.	This NTP request is for geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	PSU-01	01	AT&T Commitments	Prior to receiving a Notice to Proceed with construction along each of the proposed power line replacement projects, SDG&E shall provide to the CPUC and Forest Service written commitment from AT&T confirming that AT&T facilities that are co-located on the proposed power line replacement projects will be relocated to SDG&E's new facilities. Facilities will be transferred in a manner that avoids interruptions of telecommunications services to the greatest degree possible. The timing of the relocation activities will be reviewed and approved by both the CPUC and Forest Service.	Pole replacement will not occur during the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre	N/A
Recreation	REC-01	01	Gate Plan	To deter unauthorized access to specially designated or restricted areas via SDG&E access roads authorized by the MSUP, the project applicant shall submit a plan and schedule for gate (or other barriers, such as pipe rails, where appropriate) installation to the Forest Service for approval. Gates will meet Forest Service engineering standards, and designs will be approved by the Forest Service prior to installation. In addition, appropriate deterrence signage approved by the Forest Service shall be installed on gates to SDG&E access roads. Maintenance of gates and signage shall be the responsibility of the project applicant.	The Gate Plan was approved by the USFS on August 25, 2016. Gate installation is not required for geotechnical investigations; instead, if applicable, it will be submitted in support of the future NTP Request for reconstruction of C449.	Pre, During, and Post	N/A
Transportation and Traffic	APM-TRANS-06	01	Coordinate with Local Air Traffic and FAA	SDG&E will coordinate flight patterns with local air traffic control and the Federal Aviation Administration prior to construction to prevent any adverse impacts due to increased air traffic.	Helicopters will not be used to conduct the geotechnical investigations along this component; therefore, this measure is not applicable.	Pre and During	N/A