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September 1, 2016

Lisa Orsaba
Project Manager
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Revised Notice to Proceed (NTP) Request #1 to Reconstruct Power Line (TL) 625B and TL629E 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 the Project (Decision 16-05-038). The decision conditionally authorizes construction of the Project with the implementation of pre-construction mitigation measures 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 to indicate their approval of the Project:

- The United States Forest Service (USFS) issued a Final Record of Decision (ROD) on March 11, 2016 and the Master Special Use Permit is pending.
- Completion of the Bureau of Land Management National Environmental Policy Act process is pending.
- The Bureau of Indian Affairs issued a Final ROD on March 30, 2016.

Activity Summary

SDG&E is formally requesting authorization from the CPUC to begin the reconstruction of TL625B (Loveland Substation to Barrett Tap) and TL629E (Cameron Tap to Crestwood Substation) components of the Project. Construction on TL625B includes the replacement of 65 existing wood poles with 56 weathered steel poles and other appurtenant equipment, pole top work at existing distribution poles, reconductoring of existing 12 kilovolt (kV)¹ underbuilt circuit and 69 kV conductors, and a minor realignment of the existing access road at Pole Z272867. A 69 kV breaker pad and 69 kV rack within the Loveland Substation will be constructed, and

¹ Reconductoring of the 12 kV line refers to the underbuilt 12 kV circuit on TL625B.

overhead and underground wire work within and immediately adjacent to the Loveland Substation will be completed as part of the TL625B work authorization. Construction on TL629E includes the replacement of 98 existing wood poles with 89 weathered steel poles, installation of other appurtenant equipment, undergrounding of approximately 0.1 mile of existing overhead power lines into the Crestwood Substation, reconductoring of the existing 12 kV² underbuilt circuit and the 69 kV conductors, and the overhead relocation of associated distribution underbuild to the new weathered steel poles. The relocation of the 12 kV circuit will require work at approximately 21 existing wood distribution poles, including pole removal and conductor work. Work within the Crestwood Substation includes underground 69 kV installation within each existing driveway and associated conductor, and fiber optic line work that will be completed as part of the TL629E work authorization, as defined by Section B. Project Description of the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Project. In addition, SDG&E is formally requesting authorization from the CPUC to establish five construction yards to begin staging, assembling, and storing equipment and materials. SDG&E has identified the first five main construction yards—Sweetwater, Japatul Spur, Merigan, Kitchen Creek, and Anderson—to support construction of the TL625B and TL629E components.

Attachment A: NTP #1 Component Maps depicts the pole removal/replacement sites, pole-top work sites, construction yards, and stringing sites required to construct each component as described by the Project's EIR/EIS. Construction methods, equipment, and procedures for removing and installing poles and conductors, as well as installing the underground duct bank, were described in detail and fully analyzed in Section B of the Project's Final EIR/EIS.

Construction of TL625B and TL629E will occur in accordance with the descriptions provided in Sections B.3.1.3, B.3.1.4, and B.3.1.7 of the Final EIR/EIS. The information provided in Sections B.3 and B.5 of the Final EIR/EIS includes specific details pertaining to excavation and disturbance areas, material staging and storage, and the installation of new poles and underground duct bank. Due to changes in site conditions and to facilitate constructability, some of the stringing site and yard boundaries were refined relative to the last Geographic Information System data set submittal in February 2015 in response to CPUC Request #10.

Upon completion of construction activities on each of the components, all areas of temporary disturbance will be recontoured and restored to pre-construction conditions to the extent practicable. Cleanup work will include removal of any temporary facilities not required for other approved Project activities, as well as collection and proper disposal of any waste, trash, and debris. Construction of TL625B and TL629E is anticipated to take approximately eight months from initial mobilization through construction completion, beginning in September 2016 and ending in May 2017.

Per the CPUC Request received on August 31, 2016, the Table 1: Temporary Impact Acreage below provides the temporary impacts associated with all work areas on TL625B and TL629E.

² Reconductoring of the 12 kV line refers to the underbuilt 12 kV circuit on TL629E.

Table 1: Temporary Impact Acreage

Temporary Impact Location	Native Vegetation (Acres)	Non-Native Grassland (Acres)	Agricultural/Disturbed/Developed/Bare Ground (Acres)
<i>TL625B</i>			
Pole Work Areas	1.22	--	0.19
Stringing Sites	0.28	--	0.21
<i>TL629E</i>			
Pole Work Areas	1.79	0.17	0.31
Stringing Sites	0.51	0.23	0.47
<i>Construction Yards</i>			
Sweetwater	--	--	0.63
Japatul Spur	0.09	--	2.68
Merrigan	--	0.71	1.33
Kitchen Creek	--	0.92	--
Anderson	--	--	4.48

Pre-Construction Mitigation Measures

A list of all pre-construction measures identified in the MMCRP and relevant to the construction of TL625B and TL629E is provided in Attachment B: Pre-Construction Status Report of this NTP request. To facilitate tracking and implementation, each measure has been organized into tasks so that the various elements of each measure can be tracked separately. Attachment B: Pre-Construction Status Report provides the full text of the measures for each component, as well as

each measure's corresponding completion status for that component and descriptive details regarding the measure's status. No construction work will occur until all of the applicable pre-construction measures are fulfilled.

We respectfully request authorization of this NTP request by September 9, 2016, so that we can begin construction activities along TL625B and TL629E 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,



Don Houston
Environmental Manager
SDG&E

Attachment A: NTP #1 Component Maps
Attachment B: Pre-Construction Status Report

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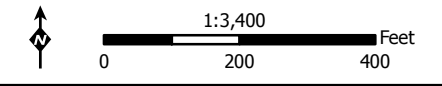
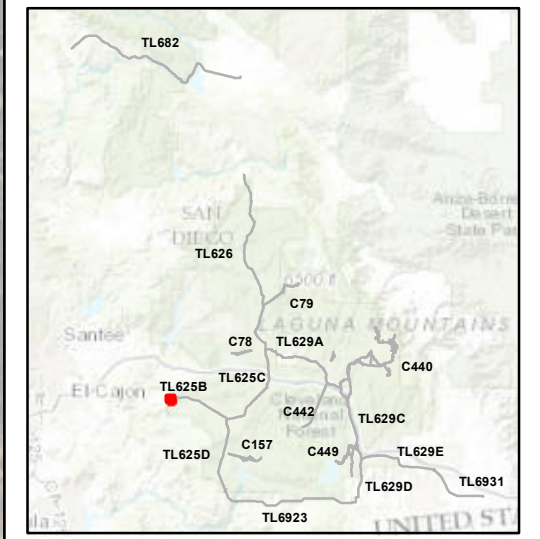
Allison Rice, Dudek
Tim Knowd, SDG&E
Kirstie Reynolds, SDG&E
Anne Marie McGraw, Insignia Environmental (Insignia)
Jeff Coward, Insignia

ATTACHMENT A: NTP #1 COMPONENT MAPS

**Attachment A:
NTP # 1 Components Map
TL625B Map 1 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

- (N) New Steel Pole
- Pole Top Work Only
- (R) Removal
- (S) Wood-to-Steel Replacement
- Undergrounding
- Wood-to-Steel Replacement
- Stringing Site
- Access Roads**
- Maintained
- Navigation



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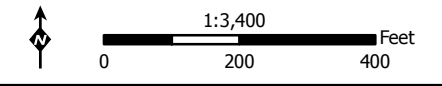
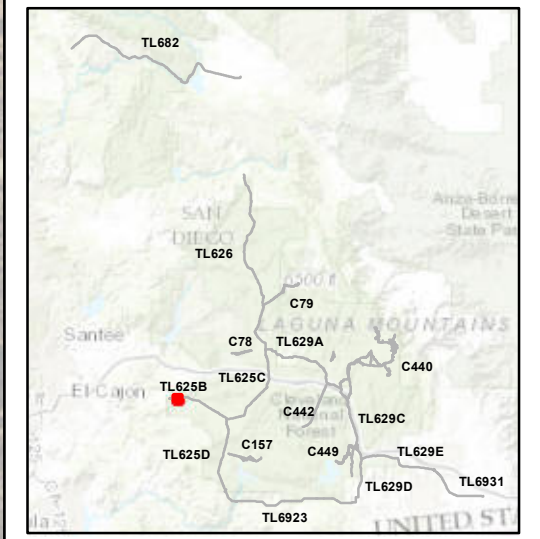
**Attachment A:
NTP # 1 Components Map
TL625B Map 2 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

- Pole Top Work Only
- Ⓡ Removal
- Ⓢ Wood-to-Steel Replacement
- Ⓢ Wood-to-Steel Replacement 12 kV Only
- Wood-to-Steel Replacement

Access Roads

- ⋯ Construction Only
- ⋯ Maintained
- ⋯ Navigation

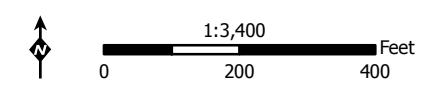
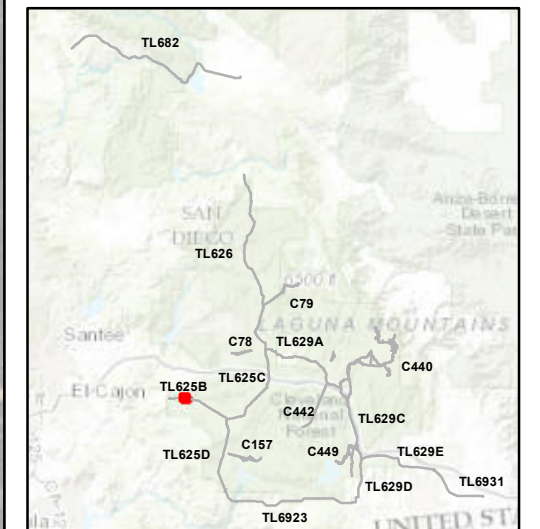


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**Attachment A:
NTP # 1 Components Map
TL625B Map 3 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

- Ⓡ Removal
 - Ⓢ Wood-to-Steel Replacement
 - Ⓢ Wood-to-Steel Replacement 12 kV Only
 - Wood-to-Steel Replacement
- Access Roads**
- ⋯ Construction Only
 - ⋯ Maintained
 - ⋯ Navigation

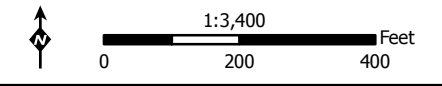
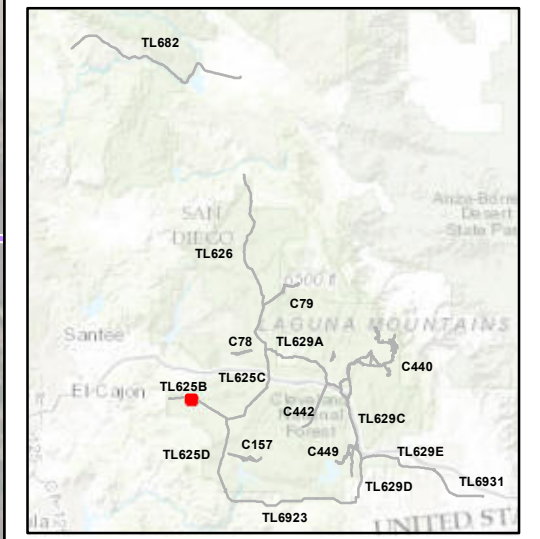


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**Attachment A:
NTP # 1 Components Map
TL625B Map 4 of 12**

**Cleveland National Forest
Power Line Replacement Projects**









-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
-  Staging Area
- Access Roads**
-  Maintained
-  Navigation

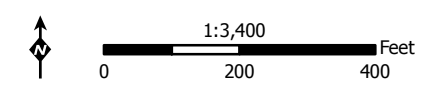
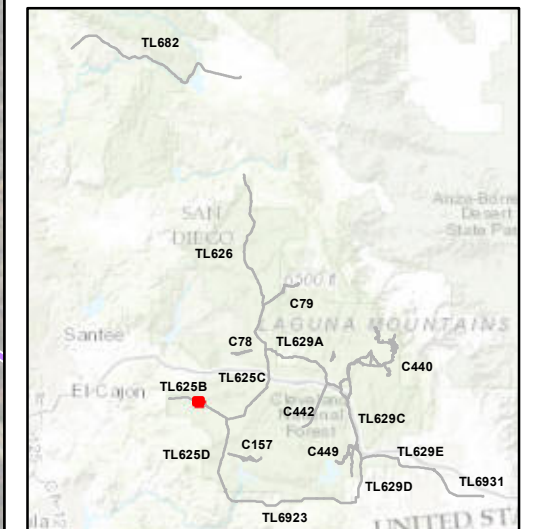
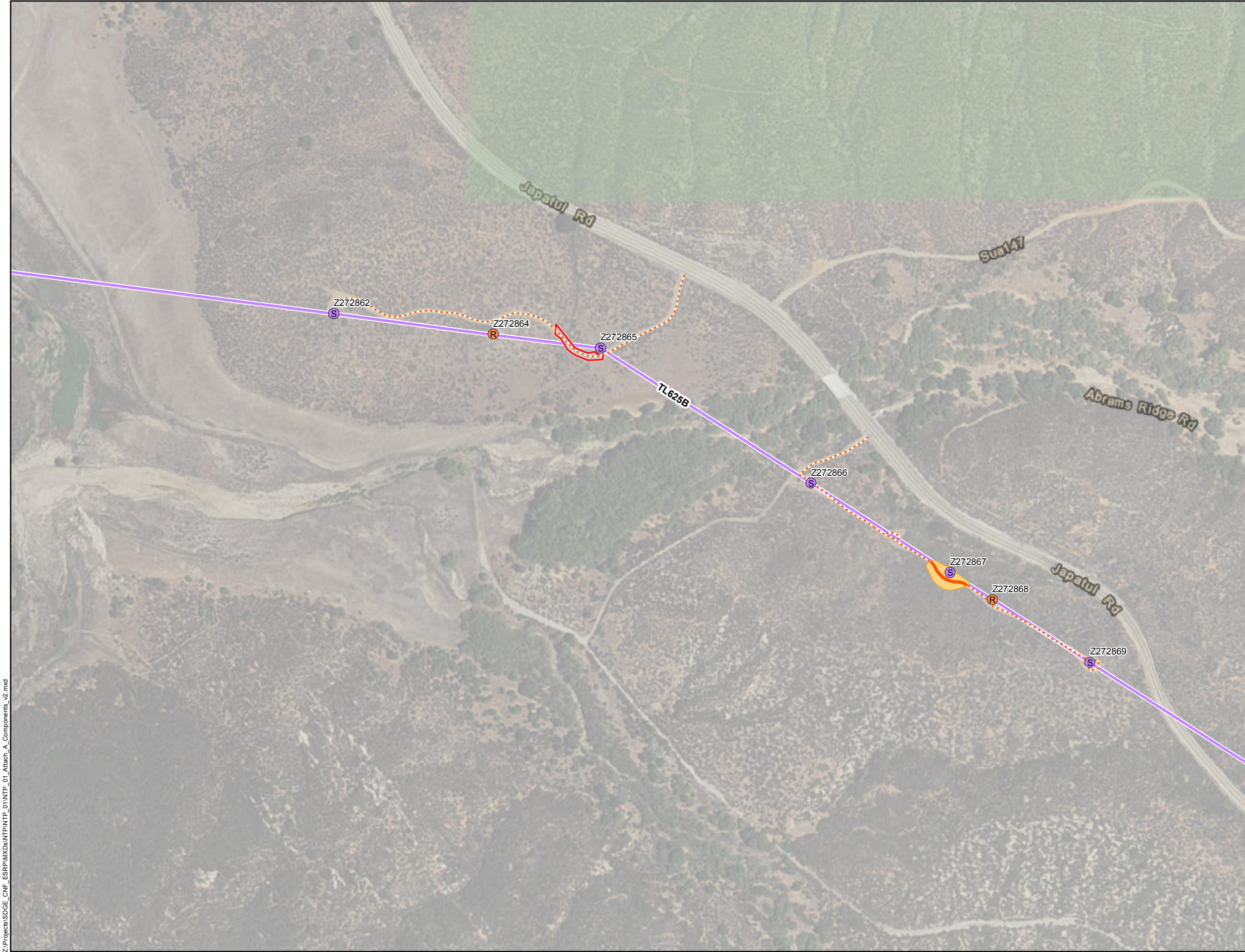


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**Attachment A:
NTP # 1 Components Map
TL625B Map 5 of 12**

**Cleveland National Forest
Power Line Replacement Projects**








-  Removal
-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
-  Stringing Site
-  Access Road Work - Temporary Disturbance
-  Access Road Work - Permanent Disturbance
- Access Roads**
-  Maintained
- Land Administration**
-  United States Forest Service

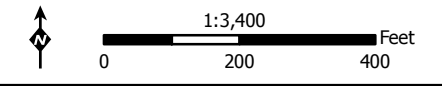
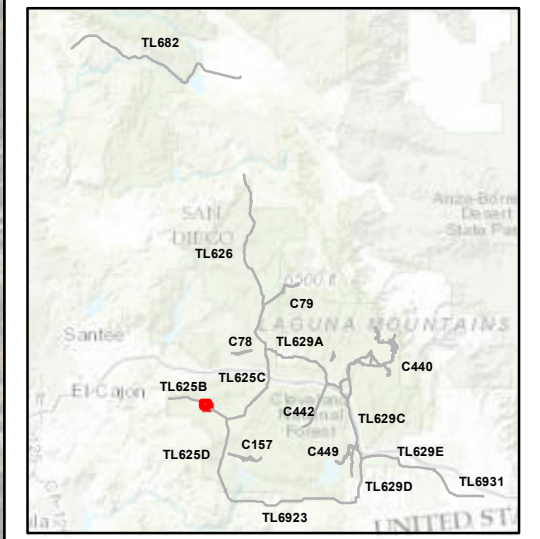


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**Attachment A:
NTP # 1 Components Map
TL625B Map 6 of 12**

**Cleveland National Forest
Power Line Replacement Projects**










-  Pole Top Work Only
-  Removal
-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
-  Stringing Site
- Access Roads**
-  Construction Only
-  Maintained

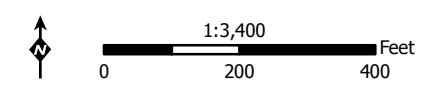
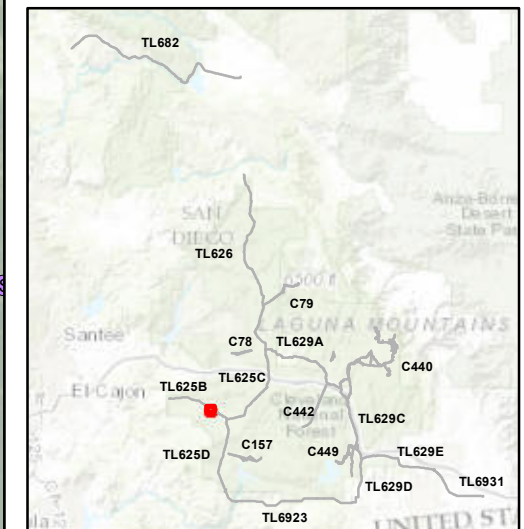
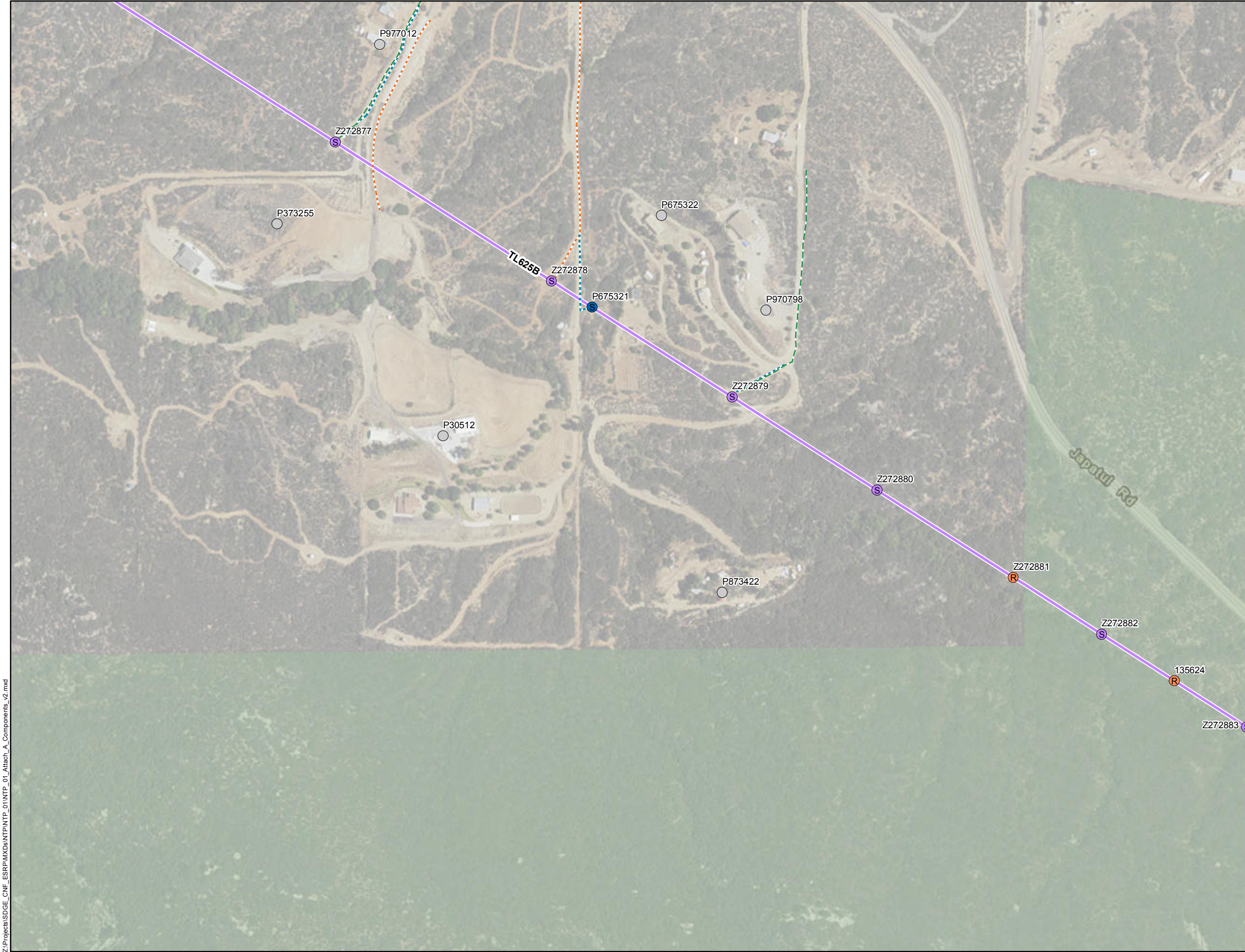


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**Attachment A:
NTP # 1 Components Map
TL625B Map 7 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

-  Pole Top Work Only
 -  Removal
 -  Wood-to-Steel Replacement
 -  Wood-to-Steel Replacement 12 kV Only
 -  Wood-to-Steel Replacement
- Access Roads**
-  Construction Only
 -  Maintained
 -  Navigation
- Land Administration**
-  United States Forest Service

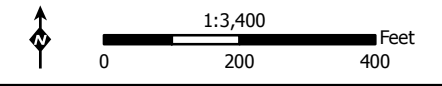
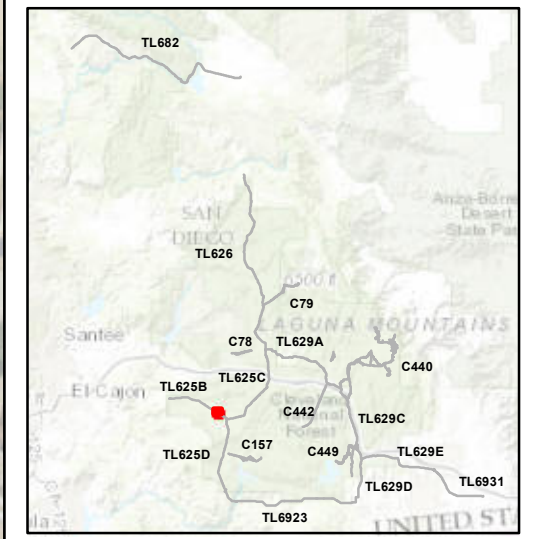


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**Attachment A:
NTP # 1 Components Map
TL625B Map 8 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

- Pole Top Work Only
 - Ⓡ Removal
 - Ⓢ Wood-to-Steel Replacement
 - Wood-to-Steel Replacement
- Access Roads**
- ⋯ Construction Only
 - - - Navigation
- Land Administration**
- United States Forest Service

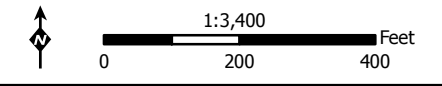
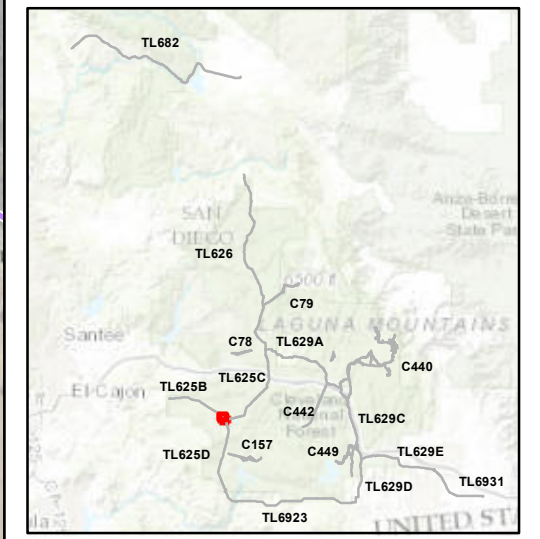
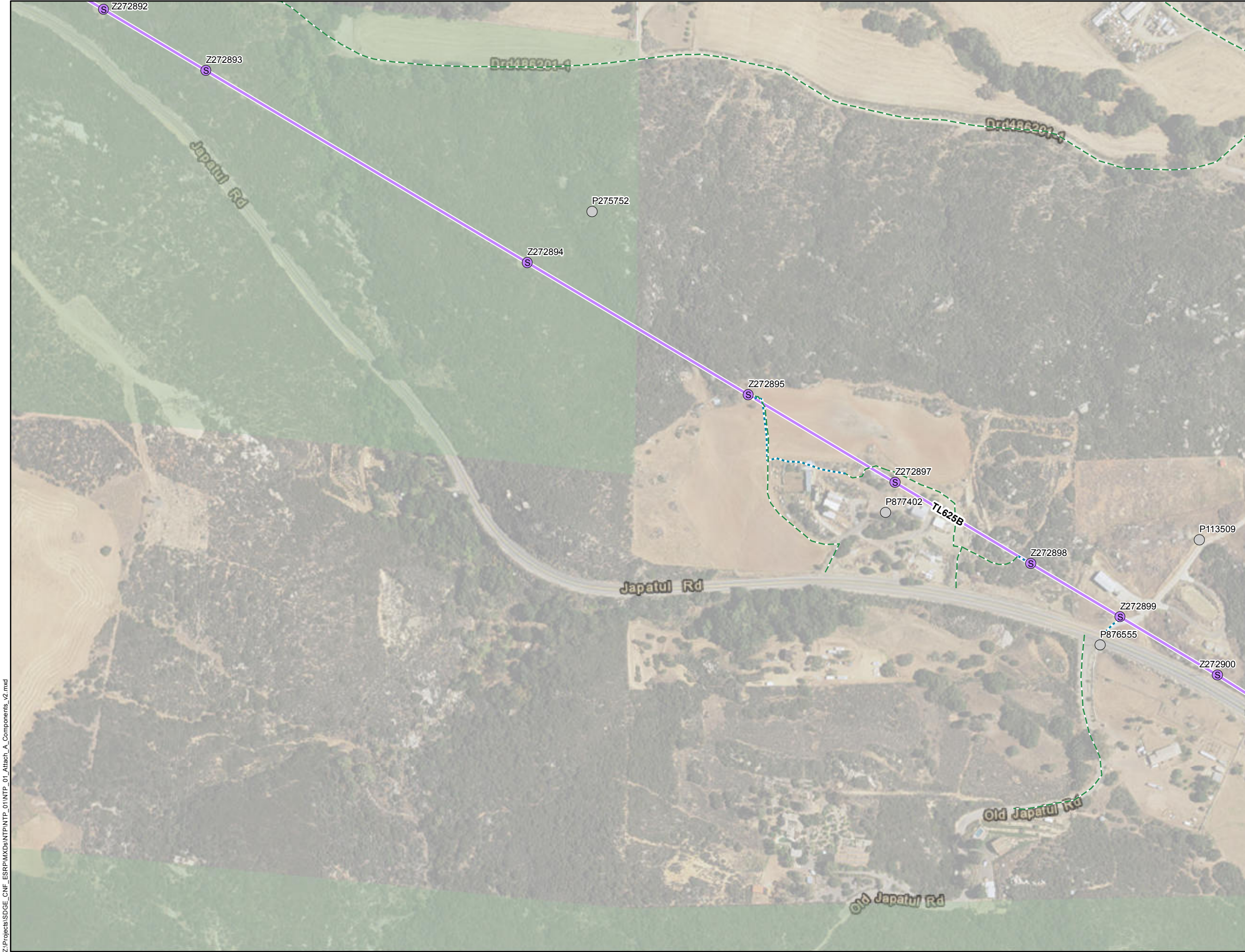


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**Attachment A:
NTP # 1 Components Map
TL625B Map 9 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

- Pole Top Work Only
- Ⓢ Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- Access Roads**
- ⋯ Construction Only
- - - Navigation
- Land Administration**
- United States Forest Service

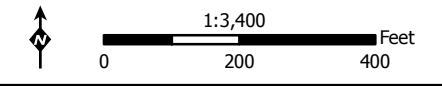
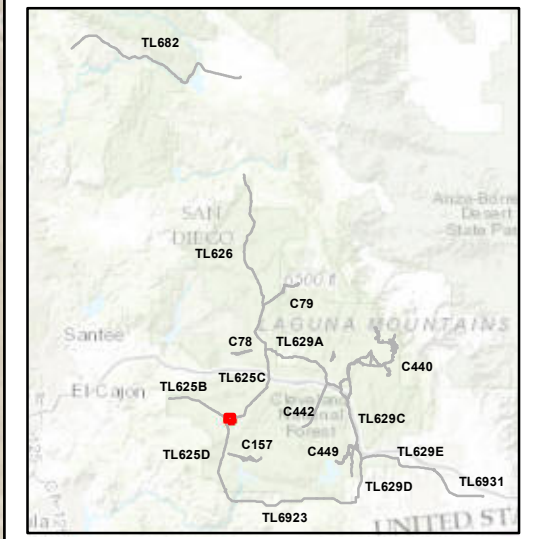


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**Attachment A:
NTP # 1 Components Map
TL625B Map 10 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

- Pole Top Work Only
- Ⓢ Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- ▭ Staging Area
- ▭ Stringing Site
- Access Roads**
- ⋯ Construction Only
- Land Administration**
- United States Forest Service

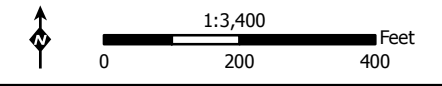
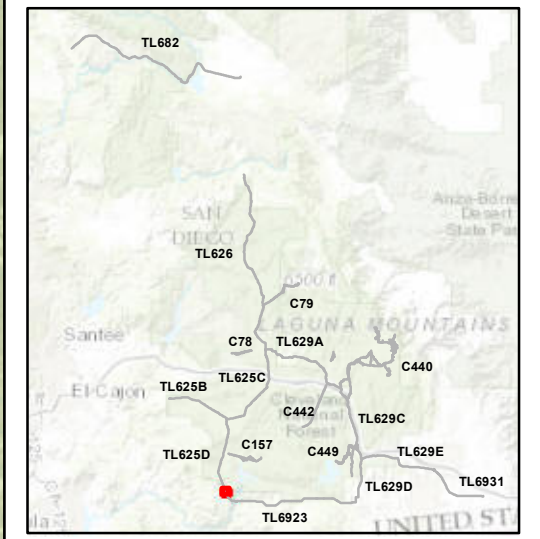


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**Attachment A:
NTP # 1 Components Map
TL625B Map 11 of 12**

**Cleveland National Forest
Power Line Replacement Projects**



- Pole Top Work Only
- Land Administration**
- United States Forest Service
- U.S. Bureau of Land Management

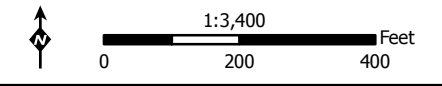
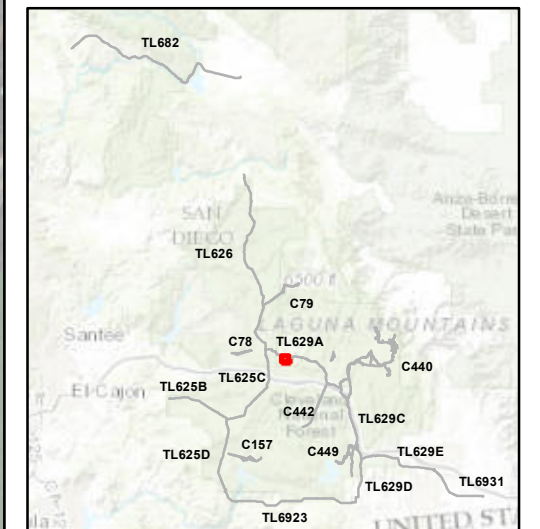


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**Attachment A:
NTP # 1 Components Map
TL625B Map 12 of 12**

**Cleveland National Forest
Power Line Replacement Projects**

-  Staging Area
- Land Administration**
-  United States Forest Service

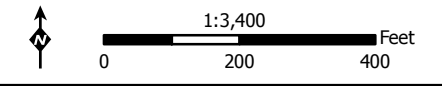
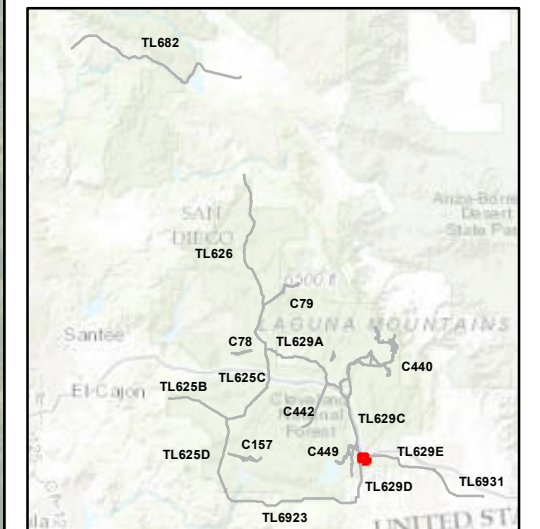
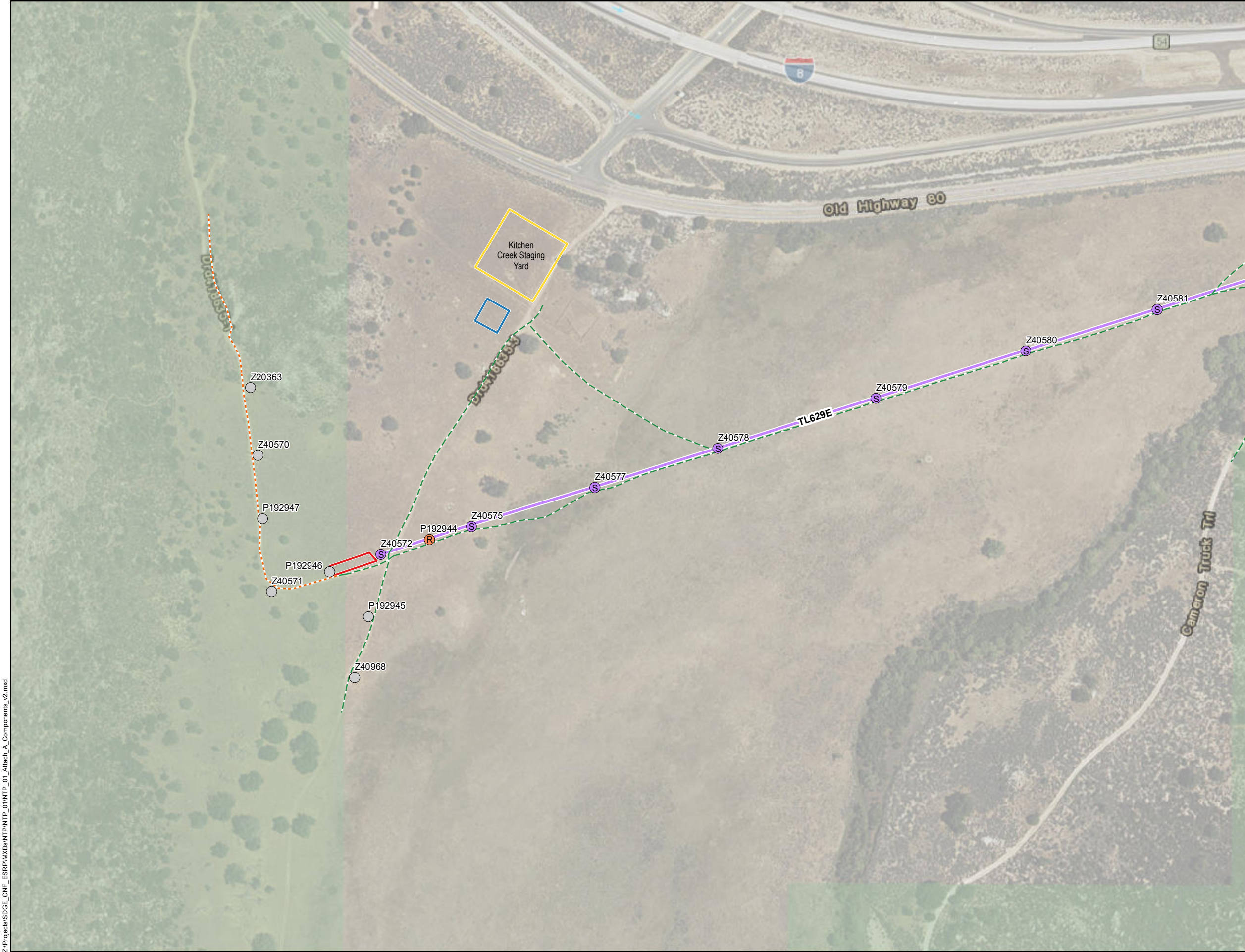


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**Attachment A:
NTP # 1 Components Map
TL629E Map 1 of 13**

**Cleveland National Forest
Power Line Replacement Projects**







- Pole Top Work Only
- Removal
- Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- Fly Yard
- Staging Area
- Stringing Site
- Access Roads**
- Maintained
- Navigation
- Land Administration**
- United States Forest Service

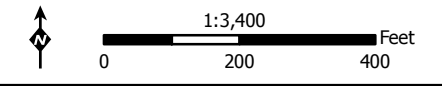
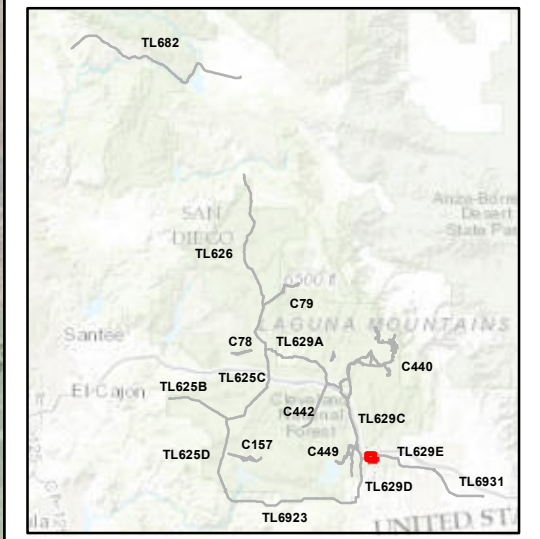
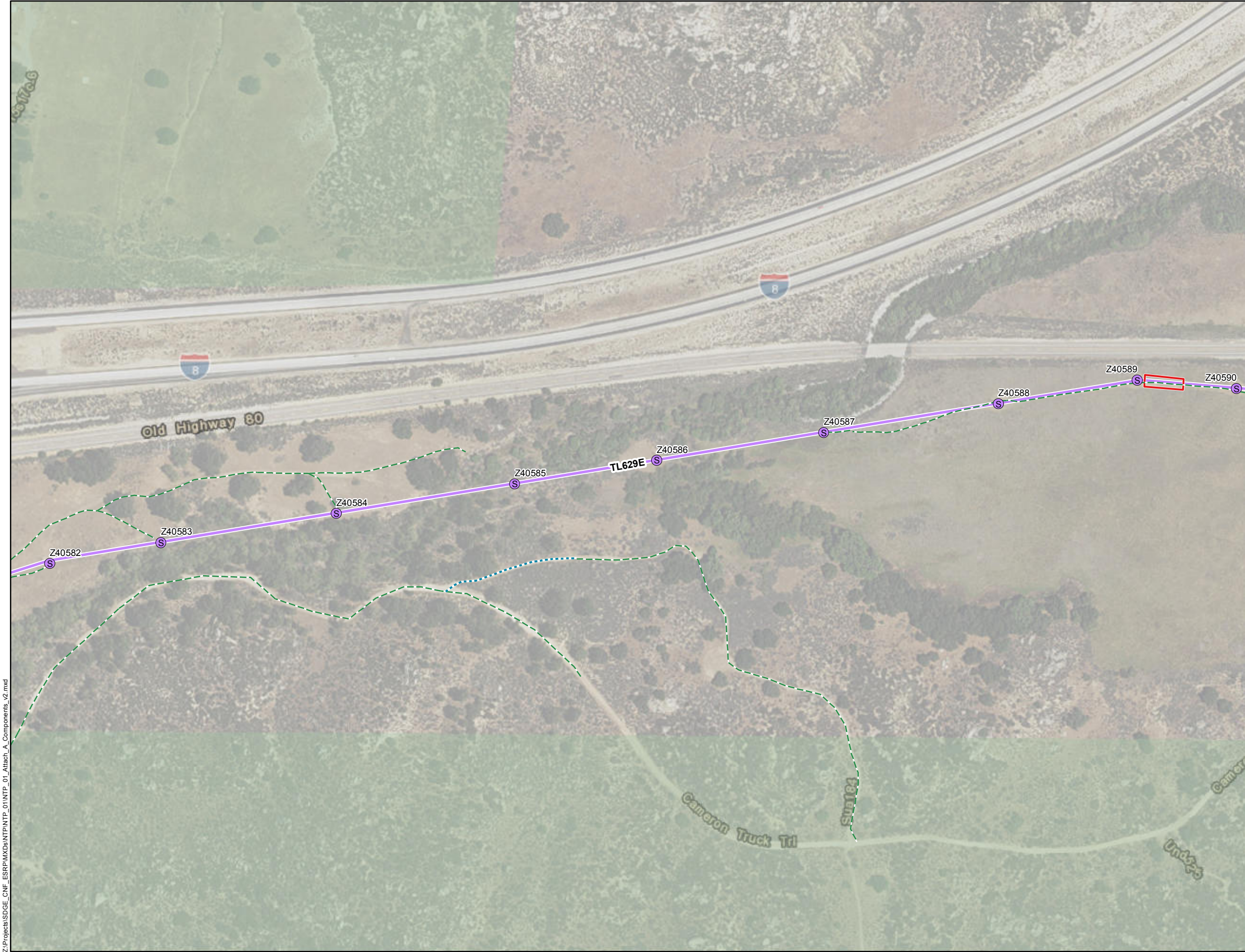


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**Attachment A:
NTP # 1 Components Map
TL629E Map 2 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
-  Stringing Site
- Access Roads**
-  Construction Only
-  Navigation
- Land Administration**
-  United States Forest Service

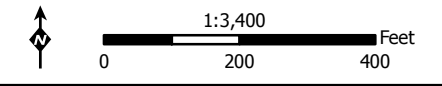
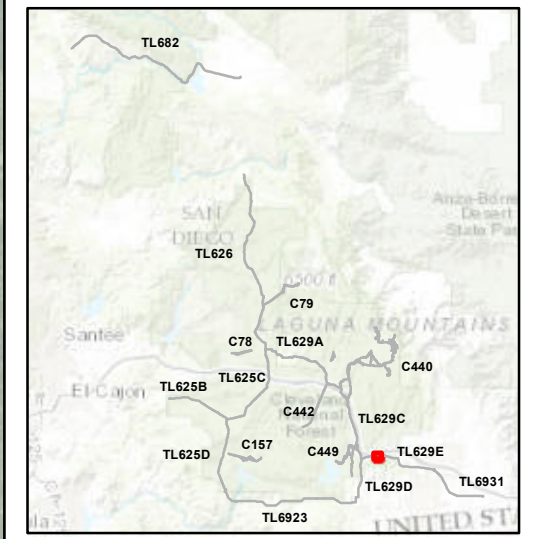


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**Attachment A:
NTP # 1 Components Map
TL629E Map 3 of 13**

**Cleveland National Forest
Power Line Replacement Projects**






- Pole Top Work Only
- Ⓢ Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- Stringing Site
- Access Roads**
- Maintained
- Navigation
- Land Administration**
- United States Forest Service

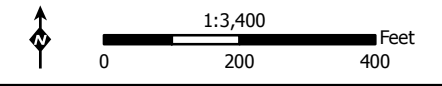
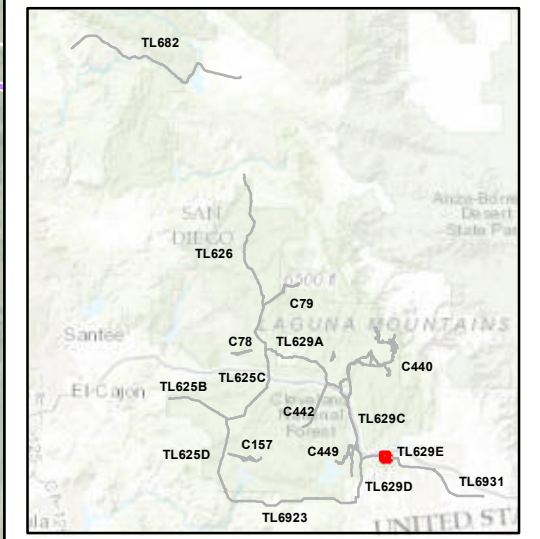


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**Attachment A:
NTP # 1 Components Map
TL629E Map 4 of 13**

**Cleveland National Forest
Power Line Replacement Projects**







-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
- Access Roads**
-  Maintained
-  Navigation
- Land Administration**
-  United States Forest Service

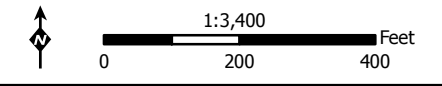
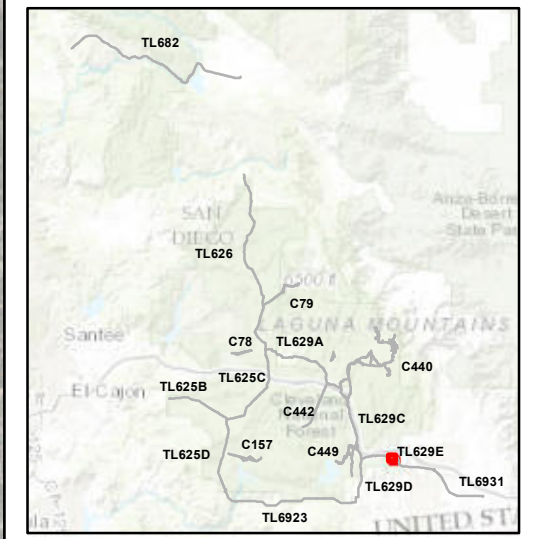


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**Attachment A:
NTP # 1 Components Map
TL629E Map 5 of 13**

**Cleveland National Forest
Power Line Replacement Projects**









-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
- Access Roads**
-  Construction Only
-  Maintained
-  Navigation
- Land Administration**
-  United States Forest Service

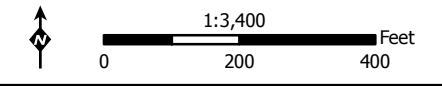
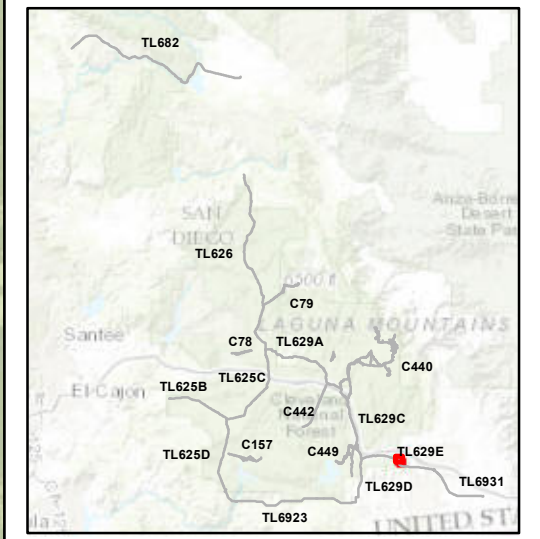


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**Attachment A:
NTP # 1 Components Map
TL629E Map 6 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
-  Stringing Site
- Access Roads**
-  Construction Only
-  Maintained
-  Navigation
-  Overland Travel
-  U.S. Bureau of Land Management

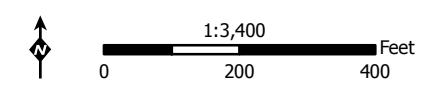
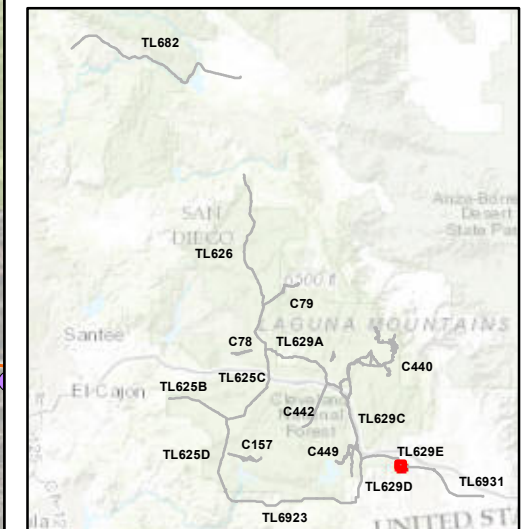


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**Attachment A:
NTP # 1 Components Map
TL629E Map 7 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

-  Wood-to-Steel Replacement
-  Wood-to-Steel Replacement
-  Stringing Site
- Access Roads**
-  Maintained
-  Navigation
-  U.S. Bureau of Land Management

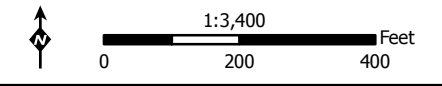
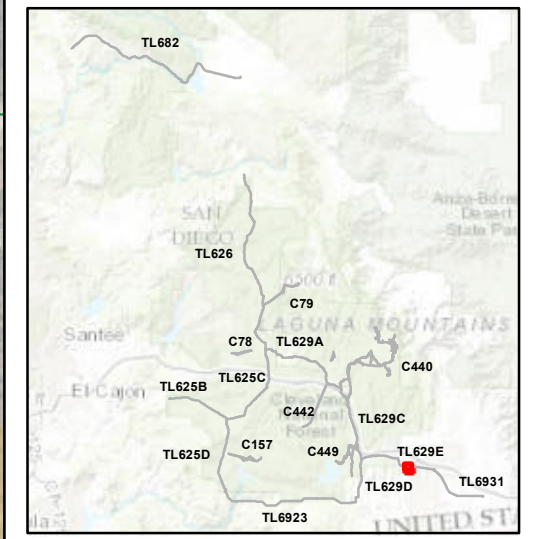
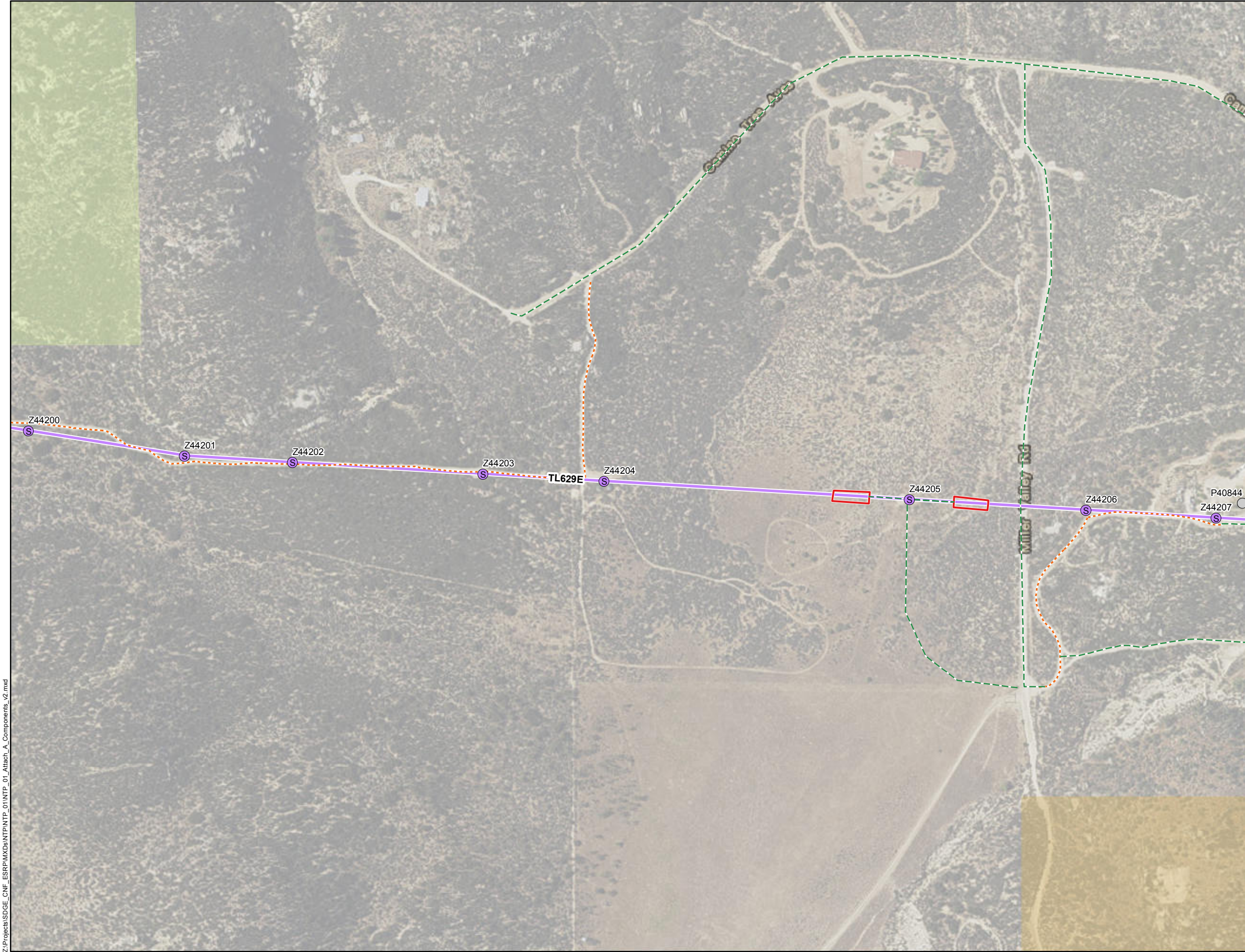


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**Attachment A:
NTP # 1 Components Map
TL629E Map 8 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

- Pole Top Work Only
- Ⓢ Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- Stringing Site
- Access Roads**
- - - Maintained
- - - Navigation
- U.S. Bureau of Land Management
- Bureau of Indian Affairs Land

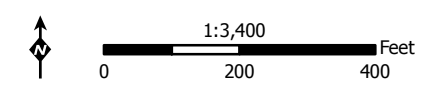
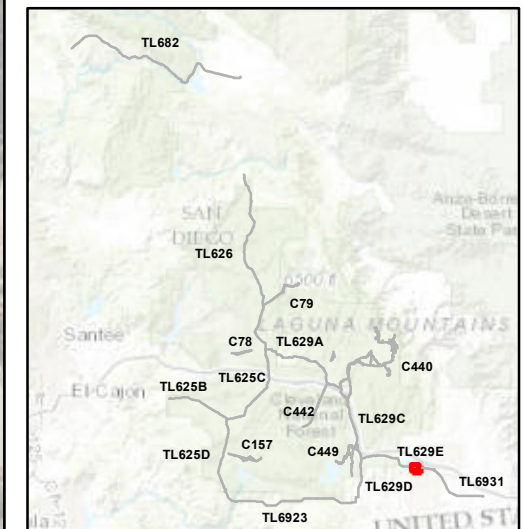
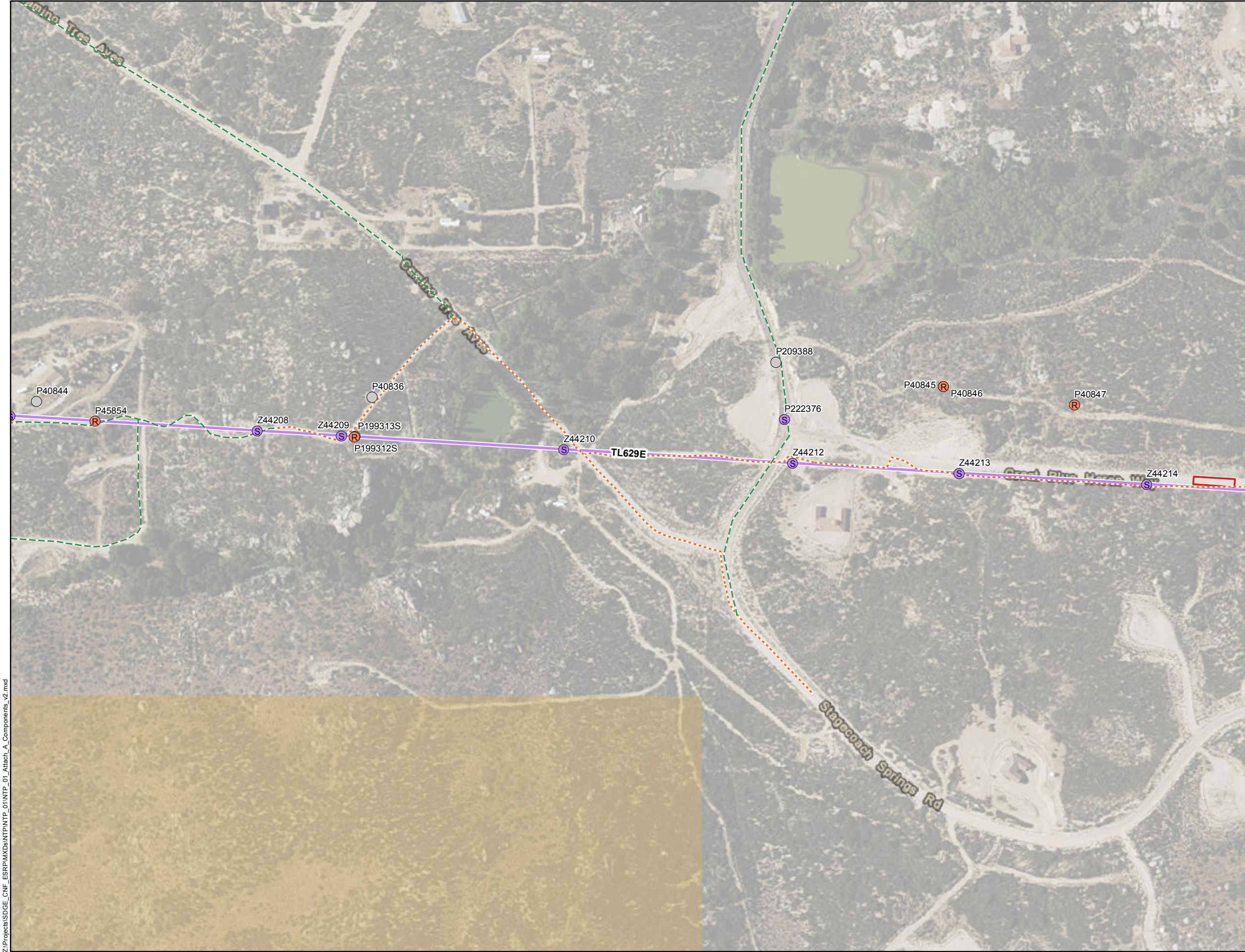


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**Attachment A:
NTP # 1 Components Map
TL629E Map 9 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

- Pole Top Work Only
- Removal
- Wood-to-Steel Replacement
- Wood-to-Steel Replacement
- Stringing Site
- Access Roads**
- Maintained
- Navigation
- Bureau of Indian Affairs Land

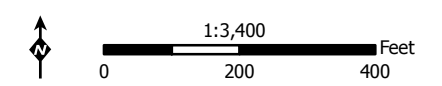
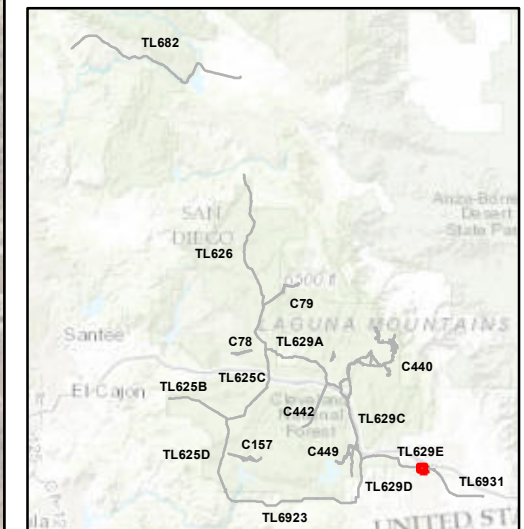


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**Attachment A:
NTP # 1 Components Map
TL629E Map 10 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

- (N) New Steel Pole
 - (R) Removal
 - (S) Wood-to-Steel Replacement
 - Wood-to-Steel Replacement
 - Stringing Site
- Access Roads**
- - - Construction Only
 - - - Maintained
 - - - Navigation



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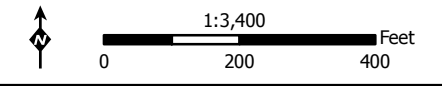
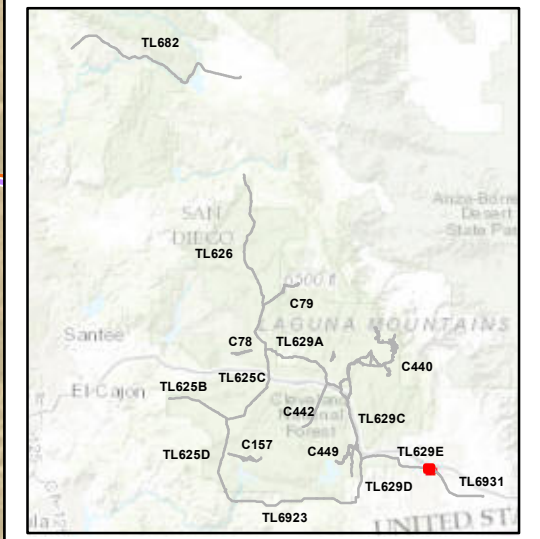
**Attachment A:
NTP # 1 Components Map
TL629E Map 11 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

- N New Steel Pole
- Pole Top Work Only
- R Removal
- S Wood-to-Steel Replacement
- Wood-to-Steel Replacement

Access Roads

- Construction Only
- Maintained
- Navigation
- Bureau of Indian Affairs Land

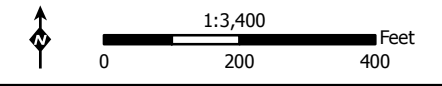
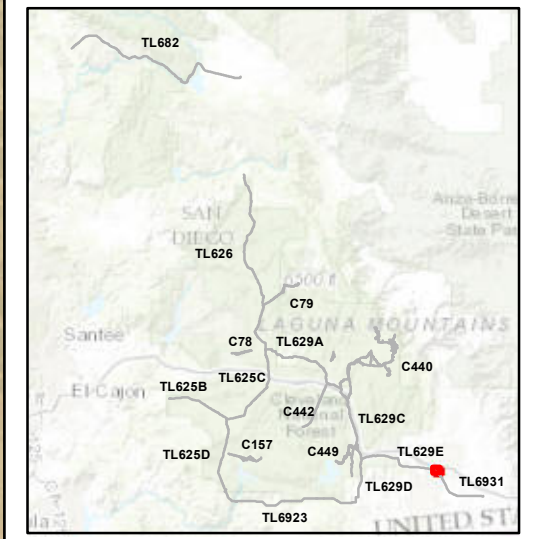


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**Attachment A:
NTP # 1 Components Map
TL629E Map 12 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

- (N) New Steel Pole
- (R) Removal
- (S) Wood-to-Steel Replacement
- Undergrounding
- Wood-to-Steel Replacement
- Bore Pit
- Stringing Site
- Access Roads**
- Maintained
- Navigation
- Bureau of Indian Affairs Land

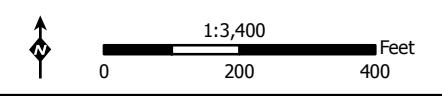
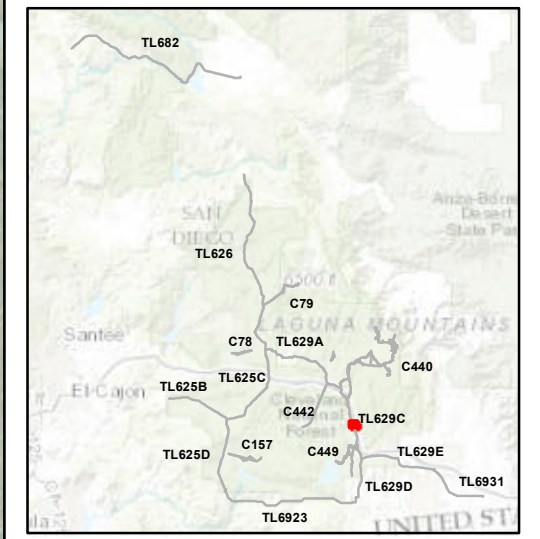


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**Attachment A:
NTP # 1 Components Map
TL629E Map 13 of 13**

**Cleveland National Forest
Power Line Replacement Projects**

- Staging Area
- Access Roads**
- Construction Only
- Land Administration**
- 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:

AGENCY: CPUC

SOURCE: MMCRP

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

LOCATION: TL625B; TL629E

Location: TL625B

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.	The USFS approved the Scenery Conservation Plan on August 5, 2016. A final copy of the plan was provided to the CPUC for their records on August 26, 2016. The Scenery Conservation Plan will be implemented during construction.	Pre and During	To Be Implemented During Construction
Visual	VIS-02	01	CNF Land Management Plan Amendment	If the Forest Service selects to fire harden TL625, 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.	The USFS Final ROD, which was signed on March 11, 2016 by the USFS, provided three project-specific amendments to the Cleveland National Forest Land Management Plan, which granted project-specific exceptions for inconsistencies with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives. TL 625B was not identified in the FEIR/EIS or ROD as conflicting with Scenic Integrity Objectives established in the 2005 Land Management Plan or the 2014 Land Management Plan Amendment for CNF.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	The USFS Final ROD, which was signed on March 11, 2016, requires compensation for impacts that are not consistent with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives. However, the Final ROD also provided project-specific amendments to resolve conflicts with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives resulting from the construction and operation of the Project. As the Project will be constructed and operated in accordance with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives as amended in the Final ROD, compensatory mitigation for this Project is no longer required for scenic quality. 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 qualified biologist has conducted a pre-activity survey of this component in accordance with SDG&E's NCCP protocols. Documentation of submittal of the pre-activity survey report to the USFWS and CDFW will be provided to the CPUC and USFS on August 31, 2016.	Pre	Complete
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.	SDG&E placed stringing sites within existing roadways to the maximum extent feasible, as shown in Revised NTP Request #1, Attachment A: NTP #1 Component Maps.	Design	To Be Implemented During Construction
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 spotted owls were identified during the pre-activity surveys of TL625B; therefore, 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.	The Avian Protection Plan, prepared in accordance with MM BIO-28, was approved by the CDFW on May 18, 2016, the USFWS on June 20, 2016, the CPUC on July 19, 2016, and the USFS on June 30, 2016, and will be implemented during construction. The Avian Protection Plan includes specific APLIC measures that will be applied as well as guidelines for specialized construction designs to meet APLIC standards.	Design and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	No active bat roosts were identified on TL625B during the pre-activity survey; therefore, this measure is not applicable.	Pre	N/A
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).	Final engineering plans with the work spaces delineated were submitted to the CPUC and USFS on August 24, 2016. The approved work limits will be delineated with stakes and/or flagging immediately prior to construction. Additional restricted access signage will be installed at work areas outside of SDG&E exclusive-use easements immediately prior to construction.	Pre and During	To Be Implemented Immediately Prior to Construction
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 construction personnel 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.	Biologist qualifications were submitted to the CPUC and USFS for approval on July 21, 2016, and resubmitted on August 19, 2016 and August 26, 2016. Griffin Brungraber and Marty Lewis were approved by the USFS as Biological Monitors on August 23, 2016. Darren Burton, Jeffrey Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto and Jesse Miller were approved by the USFS on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, and Ian Hirschler were approved by the USFS as "Trainees only" on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, Ian Hirschler, Darren Burton, Jeffrey Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto, Griffin Brungraber, and Jesse Miller were approved as Biological Monitors by the CPUC on August 30, 2016.	Pre and During	To Be Implemented Immediately Prior to Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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:- Introducti; 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.	The Habitat Restoration Plan was approved by the CPUC and USFS on August 11, 2016. Jeffry Coward was approved as the Habitat Restoration Specialist by the CPUC on September 14, 2015 and by the USFS on October 26, 2015. Cecilia Meyer-Lovell was also approved as the Habitat Restoration Specialist by the CPUC on May 31, 2016 and by the USFS on May 23, 2016.	Pre, During, and Post	Complete
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. Fire prevention BMPs will be implemented during construction in accordance with the Project's Construction Fire Prevention/Protection Plan.	Pre and During	To Be Implemented During Construction
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.	A SWPPP specific to C78, TL625B, and TL629E was uploaded to the California Storm Water Multiple Applications and Report Tracking System on May 6, 2016 and a Notice of Intent was received on May 11, 2016 (WDID# 9 37C376248). The SWPPP materials and Notice of Intent were submitted for file to the CPUC and USFS on May 20, 2016. The SWPPP will be implemented during construction.	Pre and During	To Be Implemented During Construction
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.	A map of pole and access road locations in the vicinity of Riparian Conservations Areas on National Forest System lands was submitted to the CPUC and USFS on August 19, 2016. The pole and access road locations were approved by the USFS on August 25, 2016.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Surveys for potentially jurisdictional waters or wetlands were completed in accordance with MM BIO-10. No impacts to jurisdictional waters from SDG&E's proposed construction activities were identified for this Project component; thus, no jurisdictional permits will be obtained.	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.	Surveys for potentially jurisdictional waters or wetlands were completed in accordance with this measure. No potential impacts to jurisdictional waters were identified; therefore, no permits were secured.	Pre	N/A
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.	No potential impacts to jurisdictional waters were identified; therefore, no permits were secured.	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 this component; therefore, this measure is not applicable.	Pre and During	N/A

Measure Category	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-13	01	Special Status Plant Surveys	<p>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.</p>	TL625B was previously surveyed for rare plants during the appropriate blooming periods.	Pre and During	N/A
Biological Resources	BIO-14	01	Special Status Plant Fencing/Flagging	<p>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.</p>	<p>Resumes of qualified biologists were approved by the USFS and the CPUC in September 2015 and April 2016. Notification of planned special-status plant species surveys was provided in March and April 2016. Focused special-status plant surveys were completed in 2010 and 2016. GIS shapefiles reflecting the results of the 2016 surveys and showing the locations of special-status plant species occurrences were submitted to the CPUC and USFS on June 21, 2016. Maps depicting special-status plant occurrences in the Project area and locations of construction fencing/flagging were submitted to the CPUC and the USFS on August 24, 2016. Special-status plant species to be avoided will be fenced or flagged immediately prior to construction.</p>	Pre and During	To Be Implemented Immediately Prior to Construction

Measure Category	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
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 Sensitive Plant Species Salvage and Relocation Plan was approved by the CPUC on August 22, 2016 and by the USFS on August 24, 2016. SDG&E will implement the Sensitive Plant Species Salvage and Relocation Plan prior to initial ground-disturbing activities. The approved Habitat Restoration Plan will be implemented during and after construction for impacts to sensitive plant species. Documentation of off-site land preservation will be completed within 36 months of initiation of construction and will be implemented where biologically preferred, based on monitoring effectiveness of special-status plant salvage and/or transplantation through established success criteria, as described in the Sensitive Plant Species Salvage and Relocation Plan.	Pre and During	To Be Implemented During Construction
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.	Resumes of qualified biologists were approved by the USFS and CPUC in September 2015, February 2016, and April 2016. Notification of planned butterfly and plant surveys was provided in June 2015, as well as in February, March, and April 2016. Special-status butterfly habitat surveys and focused special-status plant surveys, which identified locations of host plant species, were completed in 2015 and 2016. GIS shapefiles reflecting the results of the surveys and showing the locations of all special-status and host plant species occurrences located during surveys were submitted to the CPUC and USFS on June 21, 2016. A map depicting areas to be fenced or flagged to protect host plant species was submitted to the CPUC and USFS on August 24, 2016. All special-status butterfly host species observed within occupied or suitable habitat for these species will be flagged prior to the start of construction for avoidance to the greatest extent feasible.	Pre	To Be Implemented Immediately Prior to Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-17	01	Butterfly Protocol Surveys	<p>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.</p>	<p>Resumes of qualified biologists were approved by the USFS and the CPUC in September 2015, February 2016, and April 2016. Notification of planned surveys was provided in June 2015, and February, March, and April 2016. A Hermes copper butterfly habitat assessment was completed in 2015 and protocol QCB and Hermes copper butterfly surveys were completed in 2016. No construction areas along this component are known to support Laguna Mountains skipper, and per coordination with the USFS, USFWS, and CPUC, Laguna Mountains skipper surveys were not conducted. The Hermes copper butterfly habitat assessment was submitted to the CDFW, USFS, and CPUC on August 25, 2015. GIS shapefiles reflecting the results of the surveys (i.e., showing the locations of host plant species occurrences located during surveys) were submitted to the CPUC and USFS on June 21, 2016. The Hermes copper butterfly survey report was submitted to the CDFW, CPUC, and USFS on August 18, 2016. The QCB survey report was submitted to the CPUC and USFS on July 25, 2016 and to the CDFW and USFWS on August 8, 2016. Documentation of QCB Survey Report submittal to the CDFW and USFWS was submitted to the CPUC and USFS on September 1, 2016.</p>	Pre	Complete
Biological Resources	BIO-18	01	Butterfly Habitat Compensation	<p>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.</p>	<p>No designated critical habitat for QCB, Hermes copper butterfly, or Laguna Mountains skipper exists along this component. Based on 2016 protocol survey results, no occupied QCB or Hermes copper butterfly habitat exists along this component. Based on coordination with the CPUC, USFS, and USFWS, no occupied habitat for Laguna Mountains skipper exists along this component. Therefore, this measure is not applicable.</p>	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	This measure applies to designated critical habitat for QCB and Laguna Mountains skipper, or Hermes copper butterfly occupied habitat along the Project. No critical habitat for QCB or Laguna Mountains skipper exists along this component. Based on 2016 protocol survey results, no Hermes copper butterfly occupied habitat exists along this component. 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 NCCP and QCB Low-Effect HCP. A Biological Opinion was issued for the Project on November 19, 2015.	Pre	Complete
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	This measure applies to areas within designated critical habitat for Laguna Mountain skipper. No critical habitat for Laguna Mountains skipper exists 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-21	01	Sensitive Butterfly Species Construction Measures	<p>If construction occurs in occupied and/or suitable habitat for sensitive butterfly species, SDG&E will implement the following:</p> <p>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.</p>	<p>This measure applies to occupied and/or suitable QCB habitat. Based on 2016 protocol survey results, no occupied habitat for QCB exists along this component. Suitable QCB habitat present along TL625B is defined as 'Unoccupied QCB Habitat' per the HCP. SDG&E will comply with the HCP as applicable. The resumes of the qualified biologists were approved in September 2015, February 2016, and April 2016 by the CPUC and USFS. The complete QCB Focused Survey Report was submitted to the CPUC and USFS on July 25, 2016. Suitable QCB habitat maps were submitted to the CPUC and USFS on August 24, 2016. Construction of this component is scheduled to occur from September 2016 until July 2017.</p>	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-21	02	Sensitive Butterfly Species Construction Measures	<p>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.)</p>	<p>This measure applies to occupied and/or suitable Hermes copper butterfly habitat. Based on 2016 protocol survey results, there is unoccupied suitable habitat for Hermes copper butterfly along this component. The resumes of the qualified biologists were approved in September 2015 and April 2016 by the CPUC and the USFS. Suitable Hermes copper butterfly habitat maps were submitted to the CPUC and USFS on August 24, 2016. Construction of this component is scheduled to occur from September 2016 until July 2017.</p>	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-21	03	Sensitive Butterfly Species Construction Measures	<p>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.</p>	<p>This measure applies to occupied and/or suitable Laguna Mountains skipper habitat. Based on 2016 survey results and coordination with CPUC, USFS, and USFWS, no occupied or suitable habitat for Laguna Mountains skipper exists along this component. Therefore, this measure is not applicable. Survey results were submitted to the CPUC and USFS on June 21, 2016.</p>	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Biologist qualifications were submitted to the CPUC and USFS for approval on July 21, 2016, and resubmitted on August 19, 2016 and August 26, 2016. Griffin Brungraber and Marty Lewis were approved by the USFS as Biological Monitors on August 23, 2016. Darren Burton, Jeffry Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto and Jesse Miller were approved by the USFS on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, and Ian Hirschler were approved by the USFS as "Trainees only" on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, Ian Hirschler, Darren Burton, Jeffry Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto, Griffin Brungraber, and Jesse Miller were approved as Biological Monitors by the CPUC on August 30, 2016. Qualified biologists have conducted a pre-activity survey of this component in accordance with SDG&E's NCCP protocols. Documentation of submittal of the pre-activity survey report to the USFWS and CDFW was provided to the CPUC and USFS on August 31, 2016. Qualified biologists delineated pre-determined access routes and work areas with staking and flagging prior to construction. Final engineering plans depicting delineated work spaces and access routes were submitted to the CPUC and USFS on August 24, 2016. Approved work limits and access routes will be delineated with staking, flagging, and signage immediately prior to construction.	Pre and During	To Be Implemented Immediately Prior to Construction

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 contracts was provided to the CPUC and USFS on July 20, 2016. Documentation that BIO-24 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. Speed limits will be enforced during construction by Project biological monitors, and compliance with this measure will be documented in the Weekly Environmental Compliance Report to be submitted to the CPUC and USFS during construction.	Pre and During	To Be Implemented During Construction
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Measure Category	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
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 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 construction 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 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 construction and documented in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction
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 1 through 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.	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; therefore, this measure is not applicable. If burrowing owls are identified in the Project vicinity, the required procedures will be followed in accordance with the approved Avian Protection Plan/Nesting Bird Management Plan.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	The Project will comply with APLIC measures in accordance with the approved Avian Protection Plan.	Pre and During	To Be Implemented During Construction
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.	Avian biologist qualifications were submitted to the CPUC and USFS for approval on July 21, 2016, and are anticipated to be resubmitted to the CPUC and USFS on September 13, 2016. Approval of the avian biologist qualifications is anticipated in September 2016. The Avian Reporting Database is described in Section 8 - Avian Reporting Database of the approved Nesting Bird Management Plan. Nests will be monitored in accordance with the approved Nesting Bird Management Plan. SDG&E will provide access to the database to the wildlife agencies as stipulated in the measure.	Pre and During	To Be Implemented During Construction
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.	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 USFS, CDFW, and USFWS is ongoing, in accordance with this measure. The USFS provided information regarding one documented historic golden eagle nest along this component. These species are addressed in Section 7.2 - Protections of Listed Species, Raptors, and Eagles of the approved Nesting Bird Management Plan. During construction, nest surveys and nest buffers will be implemented in accordance with the approved Nesting Bird Management Plan.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-30	01	Bat Protection	<p>(A) Townsend's bat protection measures</p> <p>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.</p>	Biologist qualifications were submitted to and approved by the CPUC and USFS in August 2015 and April 2016. A literature review and follow-up surveys for potential Townsend's bat roosts were conducted during the breeding/pupping season in 2015. The bat roost assessment and focused survey report was submitted to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre	Complete
Biological Resources	BIO-30	02	Bat Protection	<p>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.</p>	Based on data collected during the literature review, field assessment, and focused surveys conducted for Townsend's big-eared bat, no active roosts were identified within 500 feet of this component. The bat roost assessment and focused survey report was submitted to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre and During	Complete
Biological Resources	BIO-30	03	Bat Protection	<p>(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.</p>	Biologist qualifications were submitted to and approved by the CPUC and USFS in August 2015 and April 2016. A literature review and follow-up surveys for potential bat roosts were conducted during the breeding/pupping 2015 season. The bat roost assessment and focused survey report was submitted to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Based on data collected during the literature review, field assessment, and focused surveys conducted for bats, no active roosts were identified within 100 feet of this component. The bat roost assessment and focused survey report was provided to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre	Complete
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.	Based on data collected during the literature review, field assessment, and focused surveys conducted in 2015, no Townsend's big-eared bat roosts were identified within 500 feet of TL 625B, and no maternity bat roosts were identified within 100 feet. If bat roosts are identified in the Project vicinity, the CPUC and CDFW will be notified. Construction exclusion buffers of 100 feet will be established at maternity roosts during the pupping season for bat species other than Townsend's big-eared bat.	Pre and During	To Be Implemented During Construction
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.	This component was previously accessible to Stephen's kangaroo rat surveys; 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 occupied habitat occurs along this Project component; therefore, this measure is not applicable.	Pre and During	N/A
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.	This measure is only applicable to C157; 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	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.	All cultural resources surveys for TL625B were completed during the initial survey (Schaefer and Williams 2011).	Pre	Complete
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.	All ESAs will be delineated with protective fencing prior to construction. Fencing will be regularly inspected for damage during construction and repaired as needed.	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 in the Historic Properties Management Plan. The Historic Properties Management Plan, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016, and the CPUC and SHPO on August 26, 2016. Completion of CUL-01 satisfies the requirements of this APM.	Pre	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	SDG&E has prepared a Paleontological Monitoring and Treatment Plan and will implement the plan during construction.	Pre and During	To Be Implemented During Construction
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, which was finalized on August 25, 2016, 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, which outlines procedures for cultural resource management consistent with this measure, will be implemented during construction.	Pre and During	To Be Implemented During Construction
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 and 2013 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. Subsequent surveys have been conducted for additional work areas which were not reviewed during the 2011 and 2013 surveys. The results of these surveys are included as part of an update to Appendix A of the Historic Properties Management Plan, which is anticipated to be submitted in September 2016. For facilities in NTP#1 not currently identified in Appendix A of the Historic Properties Management Plan, no work will occur until an updated Appendix A is submitted and approved. The Historic Properties Management Plan, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre	Complete
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 cultural and historical resources will be avoided to the maximum extent possible during construction. A map book identifying all environmentally sensitive areas to be flagged and avoided during construction was provided to the CPUC and USFS on August 24, 2016.	Pre and During	To Be Implemented During Construction
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, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	This measure does not apply to this component as this component is not listed in the measure.	Pre and During	N/A
Cultural and Paleontological Resources	CUL-03	01	Implement CRTR Recommendations	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).	All cultural monitoring requirements and recommendations included in the Cultural Resources Technical Report and Appendix A of the Historic Properties Management Plan will be implemented prior to and during construction. Documentation confirming the completion of all measures provided in the Cultural Resources Technical Report will be provided to the CPUC and USFS in the Weekly Environmental Compliance Report. The avoidance measures for the final design were included in Appendix A of the Historic Properties Management Plan. The Historic Properties Management Plan, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016. Resumes of archaeologists that will be implementing measures were submitted to the CPUC and the USFS on July 28, 2016. Approval of the archaeologist 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 were provided to the CPUC and USFS on August 24, 2016.	Pre and During	To Be Implemented During Construction

Measure Category Title	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 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. The Plan will be implemented during construction.	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	Complete
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 during construction immediately prior to ground disturbance as applicable.	Pre and During	To Be Implemented Immediately Prior to Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Surveys for potentially jurisdictional waters or wetlands were completed in accordance with MM BIO-10. No impacts to jurisdictional waters from SDG&E's proposed construction activities were identified for this Project component; thus, no jurisdictional permits will be obtained.	Pre	Complete
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.	A SWPPP specific to C78, TL625B, and TL629E was uploaded to the State Water Resources Control Board's California Storm Water Multiple Applications and Report Tracking System on May 6, 2016 and a Notice of Intent was received on May 11, 2016 (WDID# 9 37C376248). The SWPPP materials and Notice of Intent were submitted to the CPUC and USFS for file on May 20, 2016. The SWPPP will be implemented during construction.	Pre and During	To Be Implemented During Construction
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.	Pre, During, and Post	Complete
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.	A SWPPP specific to C78, TL625B, and TL629E was uploaded to the State Water Resources Control Board's California Storm Water Multiple Applications and Report Tracking System on May 6, 2016 and a Notice of Intent was received on May 11, 2016 (WDID# 9 37C376248). The SWPPP materials and Notice of Intent were submitted to the CPUC and USFS on May 20, 2016. The SWPPP will be implemented during construction.	Pre and During	Complete
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.	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.	The approved Water Supply Plan does not currently include any potential sources that derive their water from groundwater.	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 approved by the USFS on August 19, 2016.	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.	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.	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.	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. The public notice mailer and newspaper advertisement were incorporated into the Construction Notification Plan, which was approved by the USFS on June 16, 2016 and by the CPUC on June 17, 2016. The final dates on the notices were updated prior to publication and/or mailing. The public venue notice was approved by the CPUC on August 2, 2016 and by the USFS on August 3, 2016. The public venue notice for this component was posted on August 3, 2016 at various locations adjacent to the project site as documented in an email to the CPUC and the USFS on August 4, 2016. The public mailer was sent out on August 17, 2016. The Certification of mailing was submitted to the CPUC and the USFS on September 1, 2016. The newspaper advertisement ran in the Alpine Sun on August 25, 2016 and the San Diego Union Tribune on August 26, 2016	Pre	Complete
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	Complete
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 them beginning work on the Project. The Worker Environmental Awareness Program training includes 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

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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 7, 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.	SDG&E will prepare a Blasting Plan in accordance with this measure if blasting is required.	Pre and During	To Be Implemented During Construction
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.	SDG&E will prepare a Blasting Plan in accordance with this measure if blasting is required.	Pre and During	To Be Implemented During Construction
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.	As identified in the measure, 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.	SDG&E performed design-level geotechnical investigations for TL625B in April and May 2015. Results of the investigations were incorporated into the final design drawings.	Pre and During	Complete
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.	Documentation confirming that AT&T facilities will be co-located on the powerline replacement structures was submitted to the CPUC and the USFS on August 2, 2016 and accepted by the USFS on August 11, 2016 and by the CPUC on August 12, 2016.	Pre	Complete
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. Through coordination with the USFS, no gates were identified for this component of the project.	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.	This measure was superseded by MM PHS-5.	Pre and During	N/A

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.	The USFS approved the Scenery Conservation Plan on August 5, 2016. A final copy of the plan was provided to the CPUC for their records on August 26, 2016. The Scenery Conservation Plan will be implemented during construction.	Pre and During	To Be Implemented During Construction
Visual	VIS-02	01	CNF Land Management Plan Amendment	If the Forest Service selects to fire harden TL625, 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.	The USFS Final ROD, which was signed on March 11, 2016, provided three project-specific amendments to the Cleveland National Forest Land Management Plan, which granted project-specific exceptions for inconsistencies with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives where TL629 intersects with the Pacific Crest Trail.	Pre	Complete
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.	The USFS Final ROD, which was signed on March 11, 2016, requires compensation for impacts that are not consistent with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives. However, the Final ROD also provided project-specific amendments to resolve conflicts with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives resulting from the construction and operation of the Project. As the Project will be constructed and operated in accordance with the Cleveland National Forest Land Management Plan Scenic Integrity Objectives as amended in the Final ROD, compensatory mitigation for this Project is no longer required for scenic quality. 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 qualified biologist has conducted a pre-activity survey of this component in accordance with SDG&E's NCCP protocols. Documentation of submittal of the pre-activity survey report to the USFWS and CDFW will be provided to the CPUC and USFS on August 31, 2016.	Pre	Complete

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.	SDG&E placed stringing sites within existing roadways to the maximum extent feasible, as shown in Revised NTP Request #1, Attachment A: NTP #1 Component Maps.	Design	To Be Implemented During Construction
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 spotted owls were identified during the pre-activity surveys of TL629E; therefore, 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.	The Avian Protection Plan, prepared in accordance with MM BIO-28, was approved by the CDFW on May 18, 2016, the USFWS on June 20, 2016, the CPUC on July 19, 2016, and the USFS on June 30, 2016, and will be implemented during construction. The Avian Protection Plan includes specific APLIC measures that will be applied as well as guidelines for specialized construction designs to meet APLIC standards.	Design and During	To Be Implemented During Construction
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.	No active bat roosts were identified on TL629E during the pre-activity survey; therefore, this measure is not applicable.	Pre	N/A
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).	Final engineering plans with the work spaces delineated were submitted to the CPUC and USFS on August 24, 2016. The approved work limits will be delineated with stakes and/or flagging immediately prior to construction. Additional restricted access signage will be installed at work areas outside of SDG&E exclusive-use easements immediately prior to construction.	Pre and During	To Be Implemented Immediately Prior to Construction
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 construction personnel 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

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Biologist qualifications were submitted to the CPUC and USFS for approval on July 21, 2016, and resubmitted on August 19, 2016 and August 26, 2016. Griffin Brungraber and Marty Lewis were approved by the USFS as Biological Monitors on August 23, 2016. Darren Burton, Jeffry Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto and Jesse Miller were approved by the USFS on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, and Ian Hirschler were approved by the USFS as "Trainees only" on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, Ian Hirschler, Darren Burton, Jeffry Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto, Griffin Brungraber, and Jesse Miller were approved as Biological Monitors by the CPUC on August 30, 2016.	Pre and During	To Be Implemented Immediately Prior to 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:- Introducti; 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.	The Habitat Restoration Plan was approved by the CPUC and USFS on August 11, 2016. Jeffry Coward was approved as the Habitat Restoration Specialist by the CPUC on September 14, 2015 and by the USFS on October 26, 2015. Cecilia Meyer-Lovell was also approved as the Habitat Restoration Specialist by the CPUC on May 31, 2016 and by the USFS on May 23, 2016.	Pre, During, and Post	Complete
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. Fire prevention BMPs will be implemented during construction in accordance with the Project's Construction Fire Prevention/Protection 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.	A SWPPP specific to C78, TL625B, and TL629E was uploaded to the California Storm Water Multiple Applications and Report Tracking System on May 6, 2016 and a Notice of Intent was received on May 11, 2016 (WDID# 937C376248). The SWPPP materials and Notice of Intent were submitted for file to the CPUC and USFS on May 20, 2016. The SWPPP will be implemented during construction.	Pre and During	To Be Implemented During Construction
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.	A map of pole and access road locations in the vicinity of Riparian Conservation Areas on National Forest System lands was submitted to the CPUC and USFS on August 19, 2016. The pole and access road locations were approved by the USFS on August 25, 2016.	Pre and During	Complete
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.	Surveys for potentially jurisdictional waters or wetlands were completed in accordance with MM BIO-10. The U.S. Army Corps of Engineers verified that SDG&E's proposed activities within waters of the U.S. will be in compliance with the terms and conditions of the Clean Water Act Section 404 Nationwide Permit Number 12 on November 19, 2015. A Clean Water Act Section 401 Water Quality Certification was issued by the Regional Water Quality Control Board on July 22, 2016. A Draft California Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement was issued by the CDFW on June 3, 2016. SDG&E provided comments on the Draft Lake and Streambed Alteration Agreement to the CDFW on June 30, 2016. The final permit is expected to be issued in September 2016. Documentation of permit issuance as evidence of final approval will be provided to the CPUC when received. No work will occur within jurisdictional waters or wetlands until required permits are received. Documentation of permit condition implementation will be provided to the CPUC and USFS through Weekly Environmental Compliance Reports. Maps showing delineated work areas and proposed flagging or fencing areas for jurisdictional waters and wetlands were provided to the CPUC and USFS on August 24, 2016.	Pre and During	Pending

Measure Category	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
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.	Prior to conducting work or establishing a final design for the Project, a planning-level assessment was conducted to identify an environmentally preferred alternative during the permitting process. Surveys for potentially jurisdictional waters or wetlands were completed to ensure the selected transmission line final design is the Least Environmentally Damaging Practicable Alternative and is in compliance with the Clean Water Act Section 404(b) (1) Guidelines. Construction associated with TL629E has the potential to impact jurisdictional waters. On November 19, 2015, the U.S. Army Corps of Engineers verified that SDG&E's proposed activities within waters of the U.S. will be in compliance with the terms and conditions of Clean Water Act Section 404 Nationwide Permit No. 12. A Clean Water Act Section 401 Water Quality Certification was issued by the Regional Water Quality Control Board on July 22, 2016. A Draft California Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement was issued by the CDFW on June 3, 2016. SDG&E provided comments on the Draft Lake and Streambed Alteration Agreement to the CDFW on June 30, 2016. The final permit is expected to be issued in September 2016. Documentation of permit issuance as evidence of final approval will be provided to the CPUC when received. Documentation of permit condition implementation will be provided to the CPUC and USFS through Weekly Environmental Compliance Reports. Maps showing delineated work areas and proposed flagging or fencing areas for jurisdictional waters and wetlands were provided to the CPUC and USFS in August 2016.	Pre	Pending
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.	Temporary impacts will be restored per the Habitat Restoration Plan, which was approved by the CPUC and USFS on August 11, 2016. Compensatory mitigation to offset the permanent loss of jurisdictional waters will be achieved through the purchase of mitigation bank credits from the San Luis Rey Mitigation Bank prior to impacts to jurisdictional waters. Documentation of compensatory mitigation and the Section 401 Water Quality Certification was submitted to the CPUC and USFS on August 17, 2016.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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 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.	The resumes of the qualified biologists were approved in September 2015 and April 2016 by the CPUC and the USFS. Preconstruction surveys for special-status plant species in areas not accessible during previous rare plant surveys were conducted in July and August of 2015 and April 2016. GIS shapefiles showing the locations of special-status plant species occurrences identified during rare plant surveys were submitted to the CPUC and USFS on June 21, 2016. The Final Special-Status Plant Species Survey Report was submitted to the CPUC and USFS on July 25, 2016.	Pre and During	Complete
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.	Resumes of qualified biologists were approved by the USFS and the CPUC in September 2015 and April 2016. Notification of planned special-status plant species surveys was provided in March and April 2016. Focused special-status plant surveys were completed in 2010 and 2016. GIS shapefiles reflecting the results of the 2016 surveys and showing the locations of special-status plant species occurrences were submitted to the CPUC and USFS on June 21, 2016. Maps depicting special-status plant occurrences in the Project area and locations of construction fencing/flagging were submitted to the CPUC and the USFS on August 24, 2016. Special-status plant species to be avoided will be fenced or flagged immediately prior to construction.	Pre and During	To Be Implemented Immediately Prior to Construction

Measure Category	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
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 Sensitive Plant Species Salvage and Relocation Plan was approved by the CPUC on August 22, 2016 and by the USFS on August 24, 2016. SDG&E will implement the Sensitive Plant Species Salvage and Relocation Plan prior to initial ground-disturbing activities. The approved Habitat Restoration Plan will be implemented during and after construction for impacts to sensitive plant species. Documentation of off-site land preservation will be completed within 36 months of initiation of construction and will be implemented where biologically preferred, based on monitoring effectiveness of special-status plant salvage and/or transplantation through established success criteria, as described in the Sensitive Plant Species Salvage and Relocation Plan.	Pre and During	To Be Implemented During Construction
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.	Resumes of qualified biologists were approved by the USFS and CPUC in September 2015, February 2016, and April 2016. Notification of planned butterfly and plant surveys was provided in June 2015, as well as in February, March, and April 2016. Special-status butterfly habitat surveys and focused special-status plant surveys, which identified locations of host plant species, were completed in 2015 and 2016. GIS shapefiles reflecting the results of the surveys and showing the locations of all special-status and host plant species occurrences located during surveys were submitted to the CPUC and USFS on June 21, 2016. A map depicting areas to be fenced or flagged to protect host plant species was submitted to the CPUC and USFS on August 24, 2016. All special-status butterfly host species observed within occupied or suitable habitat for these species will be flagged prior to the start of construction for avoidance to the greatest extent feasible.	Pre	To Be Implemented Immediately Prior to Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-17	01	Butterfly Protocol Surveys	<p>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.</p>	<p>Resumes of qualified biologists were approved by the USFS and the CPUC in September 2015, February 2016, and April 2016. Notification of planned surveys was provided in June 2015, and February, March, and April 2016. A Hermes copper butterfly habitat assessment was completed in 2015 and protocol QCB and Hermes copper butterfly surveys were completed in 2016. No construction areas along this component are known to support Laguna Mountains skipper, and per coordination with the USFS, USFWS, and CPUC, Laguna Mountains skipper surveys were not conducted. The Hermes copper butterfly habitat assessment was submitted to the CDFW, USFS, and CPUC on August 25, 2015. GIS shapefiles reflecting the results of the surveys (i.e., showing the locations of host plant species occurrences located during surveys) were submitted to the CPUC and USFS on June 21, 2016. The Hermes copper butterfly survey report was submitted to the CDFW, CPUC, and USFS on August 18, 2016. The QCB survey report was submitted to the CPUC and USFS on July 25, 2016 and to the CDFW and USFWS on August 8, 2016. Documentation of QCB Survey Report submittal to the CDFW and USFWS was submitted to the CPUC and USFS on September 1, 2016.</p>	Pre	Complete
Biological Resources	BIO-18	01	Butterfly Habitat Compensation	<p>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.</p>	<p>No designated critical habitat for QCB, Hermes copper butterfly, or Laguna Mountains skipper exists along this component. Based on 2016 protocol survey results, no occupied QCB or Hermes copper butterfly habitat exists along this component. Based on coordination with the CPUC, USFS, and USFWS, no occupied habitat for Laguna Mountains skipper exists along this component. Therefore, this measure is not applicable.</p>	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	This measure applies to designated critical habitat for QCB and Laguna Mountains skipper, or Hermes copper butterfly occupied habitat along the Project. No critical habitat for QCB or Laguna Mountains skipper exists along this component. Based on 2016 protocol survey results, no Hermes copper butterfly occupied habitat exists along this component. 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 NCCP and QCB Low-Effect HCP. A Biological Opinion was issued for the Project on November 19, 2015.	Pre	Complete
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	This measure applies to areas within designated critical habitat for Laguna Mountain skipper. No critical habitat for Laguna Mountains skipper exists 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-21	01	Sensitive Butterfly Species Construction Measures	<p>If construction occurs in occupied and/or suitable habitat for sensitive butterfly species, SDG&E will implement the following:</p> <p>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.</p>	<p>This measure applies to occupied and/or suitable QCB habitat. Based on 2016 protocol survey results, no occupied habitat for QCB exists along this component. Suitable QCB habitat present along TL629E is defined as 'Unoccupied QCB Habitat' per the HCP. SDG&E will comply with the HCP as applicable. The resumes of the qualified biologists were approved in September 2015, February 2016, and April 2016 by the CPUC and USFS. The complete QCB Focused Survey Report was submitted to the CPUC and USFS on July 25, 2016. Suitable QCB habitat maps were submitted to the CPUC and USFS on August 24, 2016. Construction of this component is scheduled to occur from September 2016 until July 2017.</p>	Pre and During	To Be Implemented During Construction
Biological Resources	BIO-21	02	Sensitive Butterfly Species Construction Measures	<p>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.)</p>	<p>This measure applies to occupied and/or suitable Hermes copper butterfly habitat. Based on survey results, no occupied or suitable habitat exists for the Hermes copper butterfly along this component; therefore, this measure is not applicable.</p>	Pre and During	N/A
Biological Resources	BIO-21	03	Sensitive Butterfly Species Construction Measures	<p>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.</p>	<p>This measure applies to occupied and/or suitable Laguna Mountains skipper habitat. Based on 2016 survey results and coordination with CPUC, USFS, and USFWS, no occupied or suitable habitat for Laguna Mountains skipper exists along this component. Therefore, this measure is not applicable. Survey results were submitted to the CPUC and USFS on June 21, 2016.</p>	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Biologist qualifications were submitted to the CPUC and USFS for approval on July 21, 2016, and resubmitted on August 19, 2016 and August 26, 2016. Griffin Brungraber and Marty Lewis were approved by the USFS as Biological Monitors on August 23, 2016. Darren Burton, Jeffry Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto and Jesse Miller were approved by the USFS on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, and Ian Hirschler were approved by the USFS as "Trainees only" on August 29, 2016. Adam Lievers, William Clayton, Marty Lewis, Ian Hirschler, Darren Burton, Jeffry Coward, Dean DiTomasso, Nick Fisher, Martin Gilroy, Marina Heberer, Audrey Johnson, Kevin Kilpatrick, Dilip Mahto, Griffin Brungraber, and Jesse Miller were approved as Biological Monitors by the CPUC on August 30, 2016. Qualified biologists have conducted a pre-activity survey of this component in accordance with SDG&E's NCCP protocols. Documentation of submittal of the pre-activity survey report to the USFWS and CDFW was provided to the CPUC and USFS on August 31, 2016. Qualified biologists delineated pre-determined access routes and work areas with staking and flagging prior to construction. Final engineering plans depicting delineated work spaces and access routes were submitted to the CPUC and USFS on August 24, 2016. Approved work limits and access routes will be delineated with staking, flagging, and signage immediately prior to construction.	Pre and During	To Be Implemented Immediately Prior to Construction

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 contracts was provided to the CPUC and USFS on July 20, 2016. Documentation that BIO-24 was included in the Worker Environmental Awareness Program was provided to the CPUC and USFS on July 20, 2016. Speed limits will be enforced during construction by Project biological monitors, and compliance with this measure will be documented in the Weekly Environmental Compliance Report to be submitted to the CPUC and USFS during construction.	Pre and During	To Be Implemented During Construction
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Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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 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 construction 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 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 construction and documented in the Weekly Environmental Compliance Report.	Pre and During	To Be Implemented During Construction
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 1 through 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.	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; therefore, this measure is not applicable. If burrowing owls are identified in the Project vicinity, the required procedures will be followed in accordance with the approved Avian Protection Plan/Nesting Bird Management Plan.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	The Project will comply with APLIC measures in accordance with the approved Avian Protection Plan.	Pre and During	To Be Implemented During Construction
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.	Avian biologist qualifications were submitted to the CPUC and USFS for approval on July 21, 2016, and are anticipated to be resubmitted to the CPUC and USFS on September 13, 2016. Approval of the avian biologist qualifications is anticipated in September 2016. The Avian Reporting Database is described in Section 8 - Avian Reporting Database of the approved Nesting Bird Management Plan. Nests will be monitored in accordance with the approved Nesting Bird Management Plan. SDG&E will provide access to the database to the wildlife agencies as stipulated in the measure.	Pre and During	To Be Implemented During Construction
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.	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 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 Nesting Bird Management Plan. During construction, nest surveys and nest buffers will be implemented in accordance with the approved Nesting Bird Management Plan.	Pre and During	To Be Implemented During Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological Resources	BIO-30	01	Bat Protection	<p>(A) Townsend's bat protection measures</p> <p>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.</p>	Biologist qualifications were submitted to and approved by the CPUC and USFS in August 2015 and April 2016. A literature review and follow-up surveys for potential Townsend's bat roosts were conducted during the breeding/pupping season in 2015. The bat roost assessment and focused survey report was submitted to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre	Complete
Biological Resources	BIO-30	02	Bat Protection	<p>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.</p>	Based on data collected during the literature review, field assessment, and focused surveys conducted for Townsend's big-eared bat, no active roosts were identified within 500 feet of this component. The bat roost assessment and focused survey report was provided to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre and During	Complete
Biological Resources	BIO-30	03	Bat Protection	<p>(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.</p>	Biologist qualifications were submitted to and approved by the CPUC and USFS in August 2015 and April 2016. A literature review and follow-up surveys for potential bat roosts were conducted during the breeding/pupping 2015 season. The bat roost assessment and focused survey report was submitted to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Based on data collected during the literature review, field assessment, and focused surveys conducted for bats, no active roosts were identified within 100 feet of this component. The bat roost assessment and focused survey report was provided to the CDFW on July 27, 2016. Documentation of submittal to the CDFW was submitted to the CPUC and USFS on August 23, 2016. The bat roost assessment and field survey for the Merrigan and Anderson Staging Yards was submitted to the CDFW on August 30, 2016.	Pre	Complete
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.	Based on data collected during the literature review, field assessment, and focused surveys conducted in 2015, no Townsend's big-eared bat roosts were identified within 500 feet of TL 629E, and no maternity bat roosts were identified within 100 feet. If bat roosts are identified in the Project vicinity, the CPUC and CDFW will be notified. Construction exclusion buffers of 100 feet will be established at maternity roosts during the pupping season for bat species other than Townsend's big-eared bat.	Pre and During	To Be Implemented During Construction
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.	Stephen Montgomery was approved as an SKR biologist by the CPUC on September 14, 2015 and by the USFS on September 15, 2016. Habitat assessment surveys for SKR were conducted in October, 2015 in locations where SKR habitat assessments were not accessible during the 2010 surveys (including 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). No SKR or SKR sign were observed during surveys along this component. The survey report was provided to the CPUC on July 31, 2016.	Pre	Complete
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 occupied 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.	This measure is only applicable to C157; 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 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. 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.	All cultural resources surveys for TL629E were completed during the initial survey (Schaefer and Williams 2011).	Pre	Complete
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.	All ESAs will be delineated with protective fencing prior to construction. Fencing will be regularly inspected for damage during construction and repaired as needed.	Pre and During	To Be Implemented Immediately Prior to Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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 in the Historic Properties Management Plan. The Historic Properties Management Plan, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016, and the CPUC and SHPO on August 26, 2016. Completion of 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.	SDG&E has prepared a Paleontological Monitoring and Treatment Plan and will implement the plan during construction.	Pre and During	To Be Implemented During Construction
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, which was finalized on August 25, 2016, 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, which outlines procedures for cultural resource management consistent with this measure, will be implemented during construction.	Pre and During	To Be Implemented During Construction
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 and 2013 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. Subsequent surveys have been conducted for additional work areas which were not reviewed during the 2011 and 2013 surveys. The results of these surveys are included as part of an update to Appendix A of the Historic Properties Management Plan, which is anticipated to be submitted in September 2016. For facilities in NTP#1 not currently identified in Appendix A of the Historic Properties Management Plan, no work will occur until an updated Appendix A is submitted and approved. The Historic Properties Management Plan, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016.	Pre	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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 cultural and historical resources will be avoided to the maximum extent possible during construction. A map book identifying all environmentally sensitive areas to be flagged and avoided during construction was provided to the CPUC and USFS on August 24, 2016.	Pre and During	To Be Implemented During Construction
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, which was finalized on August 25, 2016, 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.	This measure does not apply to this component as this component is not listed in the measure.	Pre and During	N/A
Cultural and Paleontological Resources	CUL-03	01	Implement CRTR Recommendations	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).	All cultural monitoring requirements and recommendations included in the Cultural Resources Technical Report and Appendix A of the Historic Properties Management Plan will be implemented prior to and during construction. Documentation confirming the completion of all measures provided in the Cultural Resources Technical Report will be provided to the CPUC and USFS in the Weekly Environmental Compliance Report. The avoidance measures for the final design were included in Appendix A of the Historic Properties Management Plan. The Historic Properties Management Plan, which was finalized on August 25, 2016, was approved by the USFS on August 25, 2016 and by the CPUC and SHPO on August 26, 2016. Resumes of archaeologists that will be implementing measures were submitted to the CPUC and the USFS on July 28, 2016. Approval of the archaeologist 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 were provided to the CPUC and USFS on August 24, 2016.	Pre and During	To Be Implemented During Construction

Measure Category Title	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 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. The Plan will be implemented during construction.	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	Complete
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 during construction immediately prior to ground disturbance as applicable.	Pre and During	To Be Implemented Immediately Prior to Construction

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Surveys for potentially jurisdictional waters or wetlands were completed in accordance with MM BIO-10. On November 19, 2015, the U.S. Army Corps of Engineers verified that SDG&E's proposed activities within waters of the U.S. will be in compliance with the terms and conditions of the Clean Water Act Section 404 Nationwide Permit Number 12. A Clean Water Act Section 401 Water Quality Certification was issued by the Regional Water Quality Control Board on July 22, 2016. A Draft California Fish and Game Code Section 1600 Lake and Streambed Alteration Agreement was issued by the CDFW on June 3, 2016. SDG&E provided comments on the Draft Lake and Streambed Alteration Agreement to the CDFW on June 30, 2016. The final permit is expected to be issued in September 2016. No work will occur within jurisdictional waters or wetlands until required permits are received.	Pre	Pending
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.	A SWPPP specific to C78, TL625B, and TL629E was uploaded to the State Water Resources Control Board's California Storm Water Multiple Applications and Report Tracking System on May 6, 2016 and a Notice of Intent was received on May 11, 2016 (WDID# 9 37C376248). The SWPPP materials and Notice of Intent were submitted to the CPUC and USFS for file on May 20, 2016. The SWPPP will be implemented during construction.	Pre and During	To Be Implemented During Construction
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.	Pre, During, and Post	Complete
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.	A SWPPP specific to C78, TL625B, and TL629E was uploaded to the State Water Resources Control Board's California Storm Water Multiple Applications and Report Tracking System on May 6, 2016 and a Notice of Intent was received on May 11, 2016 (WDID# 9 37C376248). The SWPPP materials and Notice of Intent were submitted to the CPUC and USFS on May 20, 2016. The SWPPP will be implemented during construction.	Pre and During	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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.	Pre and During	Complete
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.	The approved Water Supply Plan does not currently include any potential sources that derive their water from groundwater.	Pre	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water Quality	HYD-04	01	Access Road Condition Evaluation and Repair Design Report	<p>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:</p> <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 approved by the USFS on August 19, 2016.	Pre and During	Complete
Hydrology and Water Quality	HYD-06	02	Creek Crossing	<p>Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. SDG&E shall develop a Jack-and-Bore/Horizontal Directional Drill (HDD) Contingency Plan for this work in accordance with MM-HYD-8. Additionally, SDG&E shall implement the following measures during horizontal boring (jack-and-bore) operations and shall be included in the HDD Contingency Plan:</p> <ol style="list-style-type: none"> 1 Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. 2 Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention). 3 Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times. 4 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. <p>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.</p>	Per the MMCRP, this measure applies only to the alternative alignment (Option 3 Underground in Boulder Creek Road); therefore, it is not applicable.	Pre and During	N/A

Measure Category Title	MMNo	TaskNo	Mitigation Measure Title	Task Text	Comments	Timing	Status
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.	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.	Pre and During	N/A
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. The public notice mailer and newspaper advertisement were incorporated into the Construction Notification Plan, which was approved by the USFS on June 16, 2016 and by the CPUC on June 17, 2016. The final dates on the notices were updated prior to publication and/or mailing. The public venue notice was approved by the CPUC on August 2, 2016 and by the USFS on August 3, 2016. The public venue notice for this component was posted on August 3, 2016 at various locations adjacent to the project site as documented in an email to the CPUC and the USFS on August 4, 2016. The public mailer was sent out on August 17, 2016. The Certification of mailing was submitted to the CPUC and the USFS on September 1, 2016. The newspaper advertisement ran in the Alpine Sun on August 25, 2016 and the San Diego Union Tribune on August 26, 2016	Pre	Complete
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	Complete

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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 them beginning work on the Project. The Worker Environmental Awareness Program training includes 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 7, 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.	SDG&E will prepare a Blasting Plan in accordance with this measure if blasting is required.	Pre and During	To Be Implemented During Construction
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.	SDG&E will prepare a Blasting Plan in accordance with this measure if blasting is required.	Pre and During	To Be Implemented During Construction
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 TL629E; 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.	SDG&E performed design-level geotechnical investigations for TL629E in April and May 2015. Results of the investigations were incorporated into the final design drawings.	Pre and During	Complete
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.	Documentation confirming that AT&T facilities will be co-located on the powerline replacement structures was submitted to the CPUC and the USFS on August 2, 2016 and accepted by the USFS on August 11, 2016 and by the CPUC on August 12, 2016.	Pre	Complete

Location: TL629E

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
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. Two gate locations were identified for this component and will be installed and maintained in accordance with the Gate Plan.	Pre, During, and Post	To Be Implemented During Construction
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.	This measure was superseded by MM PHS-5.	Pre and During	N/A