



Jennifer L. Kaminsky
SOCRE Environmental Project Manager
San Diego Gas & Electric Company
(T) 858-503-5028
(C) 773-802-3420

October 5, 2017

Andrew Barnsdale
Project Manager
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Notice to Proceed (NTP) Request 1 to conduct a geotechnical investigation and hazardous materials abatement at the future San Juan Capistrano Substation as part of South Orange County Reliability Enhancement Project.

Mr. Barnsdale:

On December 15, 2016, the California Public Utilities Commission (CPUC) voted to grant San Diego Gas & Electric Company (SDG&E) a Certificate of Public Convenience and Necessity (Decision D.16-12-064) for the South Orange County Reliability Enhancement Project (SOCRE or Project) contingent upon implementation of the Mitigation Monitoring, Compliance and Reporting Program (MMCRP). SDG&E is formally requesting a Notice to Proceed (NTP) from the CPUC to conduct a geotechnical investigation and hazardous materials abatement at the future San Juan Capistrano Substation as identified herein and described in the Final Environmental Impact Report (FEIR), dated April 25, 2016 (State Clearinghouse No. 2013011011).

Pursuant to the Project's MMCRP, the following information is provided and organized as outlined in Section 3.2.2, Notice to Proceed Process Requirements, and contains all pertinent information required for the CPUC to authorize Notice to Proceed (NTP) 1.

1.0 Description of Work and Comparison to FEIR

As described in the Project's FEIR (Section 2.4.10, Final Engineering and Additional Environmental Analysis, page 2-62), and in support of the rebuilding and upgrading of the future San Juan Capistrano Substation to a gas-insulated (GIS) substation, SDG&E is requesting authorization to conduct a geotechnical investigation within the future San Juan Capistrano Substation site. Results from the geotechnical investigation are necessary to support the final substation design.

As described in the Project's FEIR (Section 2.4.4, Substation Construction Activities, page 2-45), and in support of the rebuilding and upgrading of the future San Juan Capistrano Substation, SDG&E is also requesting authorization to conduct hazardous material abatement of the former utility structure located in the lower yard of the substation site. Removal and abatement of the hazardous materials will support the eventual demolition of the East Wing of the former utility

structure and the restoration of the West Wing for future use as part of the Project as described in Mitigation Measure CUL-8.

All activities described below in Section 2.0, Description of Activities for Project Component, are consistent with the description of these activities contained within the Project's FEIR, with the addition of specific details of each activity that were not available during preparation of the FEIR.

2.0 Description of Activities for Project Component

As noted above, the geotechnical investigation and hazardous material abatement will be conducted in support of the rebuilding and upgrading of the future San Juan Capistrano Substation. The following discussion describes the specific tasks associated with the activities included in NTP-1.

2.1 Geotechnical Investigation

As part of general Project geotechnical investigations, SDG&E will perform percolation tests at the San Juan Capistrano Substation site. As part of the percolation testing, SDG&E contractors will dig two test pits to depths up to approximately 6 feet below ground surface (feet BGS) and approximately 2 feet by 4 feet in diameter. The geotechnical investigation will consist of infiltration testing, which involves filling the test pits with potable water to a depth consistent with conceptual infiltration facility ponding, above the test pit bottom. A total of approximately 100 gallons of water will be used for the percolation tests and will be supplied either via the existing water tap on the property or will be brought to the site in a tank located in the back of a crew truck. A total of approximately 100 gallons of water will be used in the test pits (50 gallons per test hole) and sourced from the local municipal supplier.

Once testing is complete, excess water will be removed from the test pits and mixed into the soil cuttings and/or thinly spread on the ground surface. The test pits will be backfilled, compacted, and grass will be replaced to restore the area close to pre-activity conditions.

2.2 Hazardous Materials Abatement

As described in the Project's Hazardous Materials and Waste Management Plan (HMWMP), the former utility structure has been tested and asbestos containing material (ACM) and lead-based paint impacted materials have been identified. In order to complete the future partial demolition and restoration of the former utility structure and construction of the new substation at the site, certain ACM and lead-based paint impacted materials need to be properly abated and/or removed.

ACM materials located in the East Wing of the former utility structure (i.e., transite wiring and roofing) will be abated, containerized, properly labeled, and disposed of in accordance with the Project's HMWMP by a licensed asbestos abatement contractor. ACM materials identified and/or encountered on the West Wing of the former utility structure will be abated as appropriate and may be left in place if restoration activities do not require disturbance of these materials and there is no threat to human health or the environment. If disturbance is required as part of the restoration activities, the identified ACM materials will be abated and removed. Asbestos abatement and removal work will be performed using proper work practices/control measures, in accordance with

applicable asbestos rules and regulations with written notification to California Occupational Health and Safety and the South Coast Air Quality Management District (SCAQMD), and SDG&E will provide a copy of the notifications to the CPUC prior to starting abatement activities. Because removal of ACM may result in a loss of roof integrity, replacement or repair of the roof of the former utility structure will be performed by a qualified roofing contractor as part of this NTP request. In addition, replacement and repair of the roof will prevent any further water damage observed inside the building. The roof repair and replacement work will not result in the alteration of any walls or other structural component of the former utility structure visible to the public. Please see Attachment B: Site Photographs depicting the roof and illustrating that the roof is recessed below an approximately 4-ft tall parapet.

Suspected or confirmed lead-containing paint, on the surfaces of the East Wing of the utility structure, will also be identified and either removed or abated prior to performance of future demolition and restoration activities as part of NTP-1 activities. As described in the Project's HMWMP, it is anticipated that surfaces of the East Wing impacted with lead-based paint will be abated by removing any flakey or loose paint and then applying a clear lacquer to reduce the spread of paint chips during demolition. Abatement of lead-containing materials will be performed using a licensed abatement contractor and wastes generated from the abatement of lead-containing materials will be properly containerized, labeled, characterized, and disposed of in accordance with federal, state, and local regulations.

Similarly, for the West Wing, the qualified abatement contractor will coordinate with the preservation engineer to determine what lead-containing materials will need to be removed or secured prior to performance of restoration work on the former utility structure. As part of this NTP request, SDG&E is not proposing to perform any abatement work that would materially alter exterior/visible walls, windows, doors or other elements of the West Wing. Alterations, repairs, or replacement of these features will not be performed prior to completion of the preconstruction requirements described in MM AES-1.

In addition to the abatement of building materials for lead-containing materials and as described in the HMWMP, SDG&E will remove surficial soil around the exterior of the former utility structure. A limited environmental investigation was conducted along the perimeter of the structure, extending approximately two to five feet from the exterior walls. Soil samples were collected at the ground surface and from approximately one foot below ground surface. The samples were analyzed and it was determined that the soils contain high levels of metals above regulatory screening levels, presumably caused by flaking lead paint. The soil removal area will extend from the former utility structure to approximately four to five feet beyond the exterior walls. Removal of the upper three inches of soil is expected to mitigate the bulk of the paint flake-related impacts, and will result in an estimated total soil volume of approximately 300 cubic yards. Once soil removal is complete, the newly exposed areas will be watered and compacted. No recontouring or revegetation will be performed.

3.0 Staging

Any staging, laydown areas, equipment storage and vehicle parking necessary to support the activities included in NTP-1 will be conducted within the existing substation property as depicted in Attachment A: NTP-1 Figures. No equipment or vehicle parking will occur on Camino

Capistrano.

4.0 Location of Project Component

Activities included with NTP-1 will be conducted within the lower yard portion of the existing substation property as shown on Figure 3 in Attachment A: NTP-1 Figures. The approximately 6.4-acre substation property is bounded by residential property to the north and streets to the west, east, and south (Camino Capistrano, Calle Santa Rosalia, and Calle Bonita, respectively). Please refer to Figure 1 in **Attachment A, NTP-1 Figures**, for an aerial view of the substation property boundary.

5.0 Estimated Area of Land Disturbance

Approximately 16 square feet of temporary land disturbance is anticipated for the geotechnical investigation all within the substation boundary which is designated for permanent disturbance in the FEIR. No trees and only a limited amount of landscape grass will be removed as part of the percolation tests. Please refer to **Attachment B, Site Photographs**, for a view of the existing site conditions at the percolation test pits and soil remediation areas. As described above, the percolation test pits will be backfilled with the soil that was excavated, recompacted and grass replaced. Please refer to Figure 2 in **Attachment A, NTP-1 Figures**, for the location of the geotechnical investigation percolation test hole work areas.

Approximately 2,051 square feet of temporary land disturbance would be necessary to facilitate removal of lead impacted soil around the former utility structure. Soil removal will extend four to five feet from the exterior of the former utility structure to a depth of approximately three inches (total of approximately 300 cubic yards). Please refer to Figure 2 in **Attachment A, NTP-1 Figures**, for the location of the soil remediation work area. The soil removal will be conducted within the substation property boundary, which is designated for permanent disturbance in the FEIR, and will also not require tree removal and will result in a limited amount of landscape grass removal.

No ground disturbance will occur associated with staging of equipment, vehicles or materials or associated with abatement work on or within the former utility structure.

6.0 Construction Schedule and Duration

SDG&E anticipates that 5 days will be required to complete the geotechnical investigation and approximately 4 to 8 weeks to complete the hazardous materials abatement. Construction associated with NTP-1 is anticipated to begin within one week of CPUC's issuance of an NTP, currently scheduled to start on October 16, 2017 and conclude on December 8, 2017.

As described in Mitigation Measure (MM) NV-1, daily construction equipment operating hours are planned for daylight hours (7:00 A.M. to 6:00 P.M.), Monday through Friday. If construction activities will be required to go beyond the allowable timeframes outlined in the City of San Juan Capistrano noise ordinance (e.g., nights, holidays, and Sundays), SDG&E will again follow the terms and notifications outlined in MM NV-1.

7.0 Construction Personnel

Approximately 2 to 4 construction personnel will typically be on site for the geotechnical investigation, and approximately 6-8 construction personnel will typically be on site during hazardous materials abatement. Peak number of construction personnel, including SDG&E management and applicable environmental compliance personnel, onsite at one time for NTP-1 activities will be approximately 15 personnel. Please see Attachment C for further details on applicable monitoring requirements.

8.0 Off-Road Diesel Equipment List

SDG&E is proposing to conduct the percolation test using only a hand-held, electric or fuel-powered auger and common hand tools. No off-road diesel powered equipment rated at or above 50 horsepower is proposed to excavate the geotechnical test pits.

The hazardous materials abatement will also utilize mainly hand tools for work on the inside and outside the former utility structure. Material removed from the former utility structure will be contained and loaded onto a truck for removal from the site. Soil removal will likely involve the use of a small skid-steer loader. Loading and off-haul of the materials may require the use of a front-end loader and flat-bed truck or dump truck. All equipment and vehicles used to complete NTP-1 construction activities will be in accordance with the equipment list outlined in Appendix F, Detailed Construction Equipment Use Tables, of the Project's FEIR. Attachment C: Air Quality Memorandum to this NTP request provides additional detail regarding anticipated equipment to be utilized during hazardous material abatement work.

9.0 Preconstruction Requirements, Status and Mitigation Measures/Applicant Proposed Measures

During construction of the components described above, SDG&E will implement all applicable Applicant Proposed Measures (APMs) and MMs as identified in the Project's FEIR and in the MMCRP. The applicability and status of all APMs and MMs included within the Project's MMCRP is provided in **Attachment C: MMCRP Requirements Tracking Table**. The table is color coded for easy reference by applicability, timing and the status (if the measure contains a preconstruction requirement). Pre-construction measures that are pending or ongoing as noted in **Attachment C** include the following:

- *MM BR-3: Preconstruction Surveys*: A CPUC-approved, qualified biologist will perform a preconstruction survey within 14 days of the start of ground disturbance.
- *MM BR-8: Western Burrowing Owl Impacts Reduction Measures*: A CPUC-approved biologist will conduct preconstruction take-avoidance surveys for burrowing owls within 150 meters of project areas in suitable habitat no more than 14 days prior to ground-disturbing activities.
- *APM CUL-1: Worker Training for Cultural Resources*. All SDG&E, contractor, and subcontractor personnel will participate in the SEAP prior to starting work on the Project.

- *MM CUL-1: Supplemental Worker Training for Cultural Resource.* All SDG&E, contractor, and subcontractor personnel will participate in the SEAP prior to starting work on the Project.

Prior to construction, SDG&E will communicate the environmental concerns and appropriate work practices to all SDG&E crews and contractors through a Safety Environmental Awareness Program (SEAP) training. The SEAP includes, but is not limited to, a review of air quality, archaeological and paleontological resources, biological resources, dust control measures, hazardous waste and spill prevention, construction fire control and emergency response measures, and noise control measures.

In support of compliance with MM AQ-1, SDG&E has provided construction NOx emissions calculations as **Attachment D, Air Quality Memorandum.**

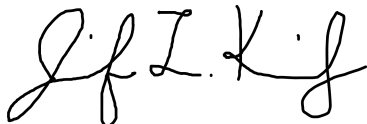
10.0 Permits and Approvals

Construction activities included in NTP-1 do not require any permits or other regulatory approvals from federal, state, or local agencies beyond the CPUC's authorization of this NTP request (including traffic control, storm water and demolition permits). Proper notifications for removal of asbestos containing materials will be submitted to the applicable regulatory agencies prior to starting work in compliance with the Project's HMWMP.

11.0 Request for Approval

SDG&E respectfully requests authorization of this NTP-1 Request to conduct the geotechnical investigation and hazardous materials abatement at the future San Juan Capistrano Substation site as conditioned on the pending pre-construction requirements identified herein and in **Attachment C** by October 13., 2017. Should you have any questions or need additional information, please do not hesitate to contact me at (858) 503-5028 or by email at jkaminsky@semprautilities.com.

Sincerely,



Jennifer L. Kaminsky
SOCRE Environmental Project Manager

Attachment A: NTP-1 Figures
Attachment B: Site Photographs
Attachment C: MMCRP Requirements Tracking Table
Attachment D: Air Quality Memorandum



cc: Joe Donaldson, Ecology and Environment, Inc.
Joel Moore, Ecology and Environment, Inc.
Keri Cuppage, SDG&E
Kelly Stallings, SDG&E
Mary Turley, SDG&E
Kenda Polio, kpe

ATTACHMENT A
NTP-1 Figures

**FIGURE 1
 CAPISTRANO SUBSTATION
 NTP # 1 – Attachment A**

**SOCRE PROJECT
 San Juan Capistrano
 Orange County, CA**

LEGEND

-  San Juan Capistrano Substation Site
-  County Boundary

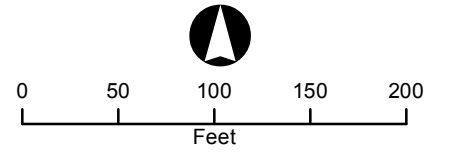








FIGURE 2
WORK AREA LIMITS
NTP # 1 – Attachment A

SOCRE PROJECT
San Juan Capistrano
Orange County, CA

LEGEND

-  Proposed Percolation Test Locations
-  Soil Remediation Area
-  Building Perimeter
-  San Juan Capistrano Substation Site



0 25 50 75 100
Feet

ATTACHMENT B
Site Photographs

Attachment B: Site Photographs

1. Former Utility Structure Roof: Existing Conditions



View of the roof of the former utility structure. As shown, the roof is in disrepair and leaks. The roof will either be repaired or replaced as part of NTP-1 activities. Also shown in the picture is the approximate 3-foot tall wall that extends around the perimeter of the structure. The wall prevents the roof from being visible from the surrounding areas.



View of the former utility structure from Camino Capistrano (looking east). As shown, the roof of the former utility structure is shielded by an approximately 3-foot tall wall and is not visible from the surrounding area.

2. Percolation Test Holes: Existing Conditions



Approximate location of Percolation Test Hole #1 looking east from Camino Capistrano. The test hole location contains grass and no trees will be removed or trimmed as part of the percolation test at this location.



Approximate location of Percolation Test Hole #2, looking west. This area has been previously disturbed and lacks vegetation with the exception of a few small patches of grass.

ATTACHMENT C
Pre-Construction Requirements Tracking Table

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
AESTHETICS			
<p>APM AES-1: Clean Work Areas. During construction, SDG&E would keep construction activities as clean and inconspicuous as practical.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement this measure during NTP-1 activities.</p>
<p>APM AES-2: Restoring Disturbed Areas. When proposed project construction has been completed all disturbed terrain would be restored through recontouring and revegetation in order to reestablish a natural appearing landscape and reduce potential visual contrasts between disturbed areas and the surrounding landscape.</p>	<p>During Restoration</p>	<p>Applicable</p>	<p>At the completion of the percolation tests, the test pits will be backfilled, compacted and grass replaced. At the completion of the soil removal activities, the exposed areas will be watered and compacted. No recontouring or revegetation is planned. Furthermore, NTP-1 activities will be conducted within the existing substation that is part of the Project's permanent impact area; therefore, permanent restoration is not required.</p>
<p>APM AES-3: Visual Screening - San Juan Capistrano Substation. The applicant would install landscaping and a screening wall would be installed in key areas along the perimeter of San Juan Capistrano Substation to partially screen views of substation structures and to visually integrate the new substation facilities with the existing setting. Figure 2-4 depicts the general location of new substation landscaping. Plant material would be appropriate to site-specific conditions and the local landscape setting. Landscaping would be consistent with technical requirements for proposed project operations and maintenance and would incorporate input from the City of San Juan Capistrano, local residents, and SDG&E's facility security.</p>	<p>During Restoration and Operation</p>	<p>Not Applicable</p>	<p>APM AES-3 is intended for the permanent visual screening of the permanent substation structures at the completion of construction. As such, this APM is not applicable to NTP-1 activities.</p>
<p>MM AES-1: Architectural Review of San Juan Capistrano Substation. To ensure that the aesthetic design of San Juan Capistrano Substation facilities, such as walls, buildings, and landscaping, are consistent with the City of San Juan Capistrano's aesthetic design criteria, the applicant shall submit a revised series of elevations and a landscape plan to the City's Architectural Review Board (ARB) prior to filing for grading and building permits. The ARB shall have the opportunity to provide input to the CPUC on whether the applicant's revised plans are consistent with the City's aesthetic design criteria and if any modifications are appropriate. The CPUC will take into account the ARB's input in reviewing and approving the aesthetic design and landscaping for the San Juan Capistrano Substation. The applicant shall not initiate ground-</p>	<p>Pre-construction</p>	<p>Not Applicable</p>	<p>NTP-1 does not include ground-disturbing activities that would alter the elevations of the site or involve site development or grading activities. NTP-1 also does not include the construction of any permanent substation facilities, structures, walls, buildings or landscape installation. The replacement of the roof will also not</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
disturbing activities until the CPUC approves the aesthetic design and landscaping plan for the San Juan Capistrano Substation.			involve alterations to any visible features of the Former Utility Structure. Refer to Attachment B, Site Photographs . Therefore, this measure is not applicable to NTP-1 activities.
MM AES-2: Minimize Clearing and Ground Disturbance and Restore Disturbed Areas to Pre-Project Conditions. Clearing and ground disturbance required for construction, operation, and maintenance, including, but not limited to, access roads, pulling sites, construction and maintenance pads, and construction laydown areas, will be the minimum required, and the applicant will consult with the CPUC to identify and implement methods to restore disturbed areas to pre-construction conditions for all areas not required for operation and maintenance. The applicant will consult with the CPUC to identify and implement methods to restore disturbed areas to conditions that would blend with the overall landscape character, to the extent feasible. Areas around new or rebuilt transmission structures that must be cleared during the construction process or other areas of ground disturbance will be regraded and revegetated to restore these areas to an appearance that will help blend them into the overall landscape character.	During Construction, Restoration, and Operation	Not Applicable	At the completion of the percolation tests, the test pits will be backfilled, compacted and grass replaced. At the completion of the soil removal activities, the exposed areas will be watered and compacted. No recontouring or revegetation is planned. Furthermore, NTP-1 activities will occur within the substation site that is part of the Project's permanent impact area needed for operation and maintenance; therefore, permanent restoration is not required.
MM AES-3: Screen or Effectively Locate Laydown Areas. Laydown areas within view of residences, scenic roads, and recreational facilities will be effectively located to limit views (aesthetic effects) of materials, equipment, vehicles, and other items used during construction. Staging and laydown areas that cannot be located away from public views will be screened using opaque fencing or landscaping to limit aesthetic effects. Where laydown areas are visible from publicly accessible areas and roads, any associated signage will be kept to the minimum necessary to communicate information about the project, safety, and security. All laydown areas will be effectively reclaimed immediately following completion of their use.	During Construction and Restoration	Applicable	SDG&E will implement this measure during NTP-1 activities. Note that laydown areas used for NTP-1 activities will be located behind the existing fence line, gates and building; accordingly, additional screening will not be necessary to implement this measure during construction.
MM AES-4: Glare and Color Contrast Reduction for Transmission Structures and Conductors. To reduce potential glare and color contrast for components of the project, the finish on all new transmission structures will be non-reflective (e.g., steel that has been galvanized and treated to create a dulled finish) to reduce light reflection and color contrast and help blend the structures into the landscape setting. All new transmission conductors will be non-specular to minimize conductor reflectivity and help blend them into the landscape setting.	During Construction	Not Applicable	NTP-1 does not include the installation of transmission structures or conductors.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>MM AES-5: Shield or Downcast Construction Lighting. To reduce the potential for visual impacts associated with construction lighting, lighting for construction activities will be limited to an amount required for safety of construction personnel and security of construction equipment. In order to minimize the effect of light pollution in the surrounding area, all construction lighting will be operated and oriented to mostly or fully eliminate off-site light spill at all times.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include the installation of light fixtures or require lighting.</p>
AIR QUALITY			
<p>APM AQ-1: Control Fugitive Dust Emissions. The applicant would minimize fugitive dust by:</p> <ul style="list-style-type: none"> • Using a gravel apron to reduce mud/dirt track-out from unpaved truck exit routes. • Applying water to disturbed areas within a construction site. • Limiting the onsite vehicles to a 15 mph speed limit on unpaved roads. If necessary, SDG&E or its contractor(s) can install speed monitoring equipment at strategic locations and along project roads. • Requiring all trucks hauling dirt, sand, soil, or other loose material to be covered with a fabric tarp and maintain a freeboard height of 12 inches. • Applying a cover to storage piles when wind events are declared. <p>Requiring local streets to be swept by Rule 1186-compliant PM10 efficient vacuum units a minimum of once per month.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement this measure during NTP-1 activities.</p>
<p>APM AQ-2: Minimize NOx and Particulate Matter (PM) Emissions from Off-Road Diesel-Powered Construction Equipment. Where available, SDG&E will ensure that all off-road diesel-powered construction equipment with engines greater than 50 horsepower are compliant with Tier 4 interim or Tier 4 off-road emissions standards, as specified by the phase-in schedule below:</p> <p>2015: 5% Tier 4 interim engines 2016: 10% Tier 4 engines 2017: 20% Tier 4 engines 2018: 30% Tier 4 engines 2019: 40% Tier 4 engines 2020: 50% Tier 4 engines</p> <p>In the event equipment with a Tier 4/Tier 4 interim engine is not available for any off-road engine larger than 50 hp, that engine shall be operated with tailpipe retrofit controls that reduce exhaust emissions of NOx and PM to no more than Tier 3 emission levels.</p> <p>Equipment with an engine not compliant with the Tier 4/Tier 4 interim standard will be allowed only when the applicant has performed (and documented) a good faith effort (due diligence) to locate Tier 4 and/or Tier 4 interim equipment in the Project vicinity (defined as within 200 miles</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement this measure during NTP-1 activities.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>of the Project site). Use of older equipment (operated with tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 3 emission levels) would be allowable following due diligence and associated documentation that no Tier 4/Tier 4 interim equipment (or emissions equivalent retrofit equipment) is available for a particular equipment type. Each case shall be documented with written correspondence (or signed statement and electronic mail) by the appropriate construction contractor, along with documented correspondence from at least two construction equipment rental firms providing equipment within the defined project vicinity (200 miles). Documentation of due diligence will be submitted to CPUC staff for before equipment is used on the project.</p> <p>The applicant will make available to CPUC staff and/or construction monitors a copy of each piece of construction equipment's certified tier specification, BACT documentation, and/or CARB or SCAQMD operating permit, as applicable, at the time of mobilization of each applicable unit of equipment.</p>			
<p>MM AQ-1: Oxides of Nitrogen (NO_x) Credits. The emissions of NO_x due to construction of the proposed project will be mitigated through the purchase of Regional Clean Air Incentive Market Trading Credits (RTCs) for every pound of NO_x emissions in excess of the SCAQMD regional significance threshold of 100 pounds per day. The total amount of NO_x RTCs to be purchased will be calculated when the construction schedule is finalized. The applicant will purchase and submit the required RTCs to the SCAQMD at least 60 days prior to the start of each construction year for the upcoming year of construction. The applicant will also track actual daily emissions during construction according to a monitoring plan that includes records of equipment and vehicle usage.</p>	Pre-construction and during Construction	Applicable	Complete. Emissions calculations associated with NTP-1 are below the 100 pounds per day threshold and therefore no credits need to be purchased for this NTP. Attachment D has been provided which includes emissions calculations associated with this NTP. SDG&E will track actual daily emissions during construction as required by the Project's monitoring plan.
BIOLOGICAL RESOURCES			
<p>SDG&E Subregional Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) Operational Protocols: See Appendix O.</p>	Pre-construction, during Construction, and Operation	Not Applicable	NTP-1 activities will not occur within natural areas subject to the NCCP.
<p>MM BR-1: Limit Construction to Designated Areas and Protect Riparian, Aquatic, and Wetland Areas. In all project locations, vehicular traffic (including movement of all equipment) will be restricted to established construction areas indicated by flagging and signage. CPUC notification and approval will be required for any additional disturbance areas already identified and evaluated for the project pursuant to CEQA. As feasible, the applicant shall use disturbed or low</p>	Pre-construction, during Construction, and Operation	Not Applicable	All NTP-1 activities will be conducted within the existing substation which does not contain riparian, aquatic or wetland area.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>habitat value areas before using undisturbed or higher quality habitat areas, as determined by a qualified biologist. Prior to ground disturbing activities, sensitive resources, such as waterbodies, oak trees, special status plant populations, and natural communities, will be clearly marked and avoided.</p> <p>All aquatic features, including vegetated washes, creeks, drainages (ephemeral and perennial), and riparian areas, will be spanned by the 230-kV transmission and 12-kV distribution line where possible. If construction will occur within 200 feet of an aquatic feature, biological monitors will establish and maintain a minimum exclusionary buffer of 50 feet from the delineated extent of all jurisdictional wetland features. If the applicant cannot maintain the 50-foot exclusionary buffer, the applicant will submit best management practices (BMPs) to the CPUC for review and approval prior to construction. In addition, if the applicant is unable to maintain the 50-foot buffer, the applicant shall consult with USACE and CDFW regarding potential impacts to streams or wetlands.</p> <p>If nighttime lighting is necessary adjacent to aquatic areas, lighting shall be shielded away from these areas to prevent impacts on aquatic wildlife.</p>			
<p>MM BR-2: Biological Monitoring. CPUC-approved, qualified biological monitors will be present during construction and restoration activities in areas where sensitive resources identified by a CPUC-approved biologist may be impacted by construction of the project. Biological monitors will be assigned to the project in areas of sensitive biological resources. The monitors will be responsible for ensuring that impacts on special status species, native vegetation, wildlife habitat, or unique resources will be avoided to the fullest extent possible. Where appropriate, monitors will flag the boundaries of areas where activities will need to be restricted in order to protect native plants and wildlife or special status species. Those restricted areas will be monitored to ensure their protection during construction. The applicant shall submit the biological monitors' daily monitoring reports and monthly biological monitoring reports to the CPUC, CDFW and USFWS.</p>	During Construction and Restoration	Applicable	NTP-1 activities are not anticipated to affect sensitive biological resources; however, if any potential sensitive resources are identified, SDG&E would implement this measure during NTP-1 activities.
<p>MM BR-3: Preconstruction Surveys.</p> <p>a. Preconstruction surveys will be conducted by CPUC-approved, qualified biologists according to standardized methods. Surveys will encompass all construction areas. Existing baseline vegetation data will be used during post-construction restoration efforts, as outlined in Section 7 of the SDG&E Subregional NCCP/HCP. Preconstruction surveys will take place for each discrete work area within 14 days of the start of ground disturbance, or if work has lapsed for longer than 14 days.</p> <p>b. Additionally, a CPUC-approved, qualified biologist will conduct preconstruction clearance sweeps for special status species at all access, staging, and work areas where suitable habitat is present within approximately 24 hours of construction and restoration activities each day.</p>	Pre-construction (no more than 14 days prior).	Applicable	Pending. a. Resumes for qualified biologists were submitted to the CPUC on 8/30/2017. Comments from the CPUC were received and revisions to the resumes were submitted on 9/26/2017. Resumes are currently pending CPUC approval. Prior to the start of NTP-1 activities, preconstruction surveys will be performed by CPUC-approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>c. In addition to these preconstruction surveys, a CPUC-approved biologist will conduct protocol-level surveys for coastal California gnatcatcher and least Bell's Vireo along the proposed 12-kV distribution line where surveys have not yet taken place. A CPUC-approved biologist will also perform protocol-level southwestern willow flycatcher and rare plant surveys throughout the entire project area, where suitable habitat exists.</p> <p>If a special status species is found at any time, the CPUC will be notified within 48 hours, and the CPUC will determine the need for additional consultation with the appropriate resource agency or agencies.</p>			<p>biologist prior to start of NTP-1 activities as required; however, NTP-1 activities will not impact any areas covered by the NCCP.</p> <p>b. Suitable habitat is not present within NTP-1 work areas; therefore, this portion of the measure is not applicable.</p> <p>c. Suitable habitat is not present within NTP-1 work areas; therefore, this portion of the measure is not applicable.</p> <p>If special status species are found during construction, CPUC will be notified as required.</p>
<p>MM BR-4: Limit Removal of Native Vegetation Communities and Trees. The removal of native vegetation and trees will be limited to the minimum practicable area required for construction of the project. To the extent feasible, grading, grubbing, graveling, or paving will only occur for permanent project components. Temporary staging areas will be used in such a way that it facilitates post-construction restoration, per Section 7 of the SDG&E Subregional NCCP/HCP. Drive-and-crush methods will be employed, with the exception of those areas where this method is not feasible for temporary staging areas for safety reasons and placement of temporary structures, such as construction trailers and drop tanks.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include removal of native vegetation communities or tree removal. Please refer to Attachment B, Site Photographs, and Attachment A, Figure 2 for a view of the percolation test holes and soil remediation areas.</p>
<p>MM BR-5: Avian Safe Building Standards. The applicant will design all transmission structures installed as part of the proposed project to be consistent with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (APLIC 2006).</p>	<p>Pre-construction</p>	<p>Not Applicable</p>	<p>NTP-1 does not include the design or construction of transmission structures.</p>
<p>MM BR-6: Migratory Birds and Raptors Impact Reduction Measures. The applicant will develop a Nesting Bird Management Plan in consultation with the USFWS, CDFW, and CPUC that outlines protective measures and BMPs that will be employed to prevent disturbance to active nests of both special status and Migratory Bird Treaty Act (MBTA) -protected bird species with the potential to occur in the project area. The Nesting Bird Management Plan will include the following components:</p> <ul style="list-style-type: none"> • Appropriate survey timing, extents, and methods, including dates of local breeding season when surveys must take place; monitoring and reporting protocol; protocol for determining 	<p>Pre-Construction, during Construction, and Restoration</p>	<p>Applicable</p>	<p>Complete. The Nesting Bird Management Plan was approved by the CPUC on 8/16/2017. SDG&E incorporated comments received from CDFW on 7/12/2017 and USFWS on 7/18/2017 into the final approved Plan. SDG&E will</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>whether a nest is active; and protocol for documenting, reporting, and protecting active nests within construction and restoration areas will be included in the Nesting Bird Management Plan. If preconstruction survey protocols exist for a-special status avian species with a potential to be impacted by the project, the plan will outline the implementation of these protocols. The survey area will include the construction area, plus an additional distance large enough to accommodate the protective buffer of MBTA-protected bird species likely to occur in proximity to the construction area. The plan will also specify approved nest deterrent methods, inactive nest management, and state that project-related nest failures will be reported to the USFWS and CDFW.</p> <ul style="list-style-type: none"> • Appropriate and effective buffer distances, including horizontal buffers from nests, horizontal buffers from territories, if appropriate, and vertical buffers for helicopters will be included. Buffers will not be based on generalized assumptions regarding all nesting birds, but will be specific to the site and species/guild and account for specific stage of nesting cycle and construction work type. During construction and restoration, a CPUC-approved avian biologist will implement the appropriate buffer distance in accordance with the plan, and a process for a reduction from the plan’s nesting buffer distances will be specified. Buffer reductions for special status species and raptors shall be determined upon consultation with USFWS, CDFW, and the CPUC. Buffer reductions for common species must be approved by the CPUC-approved avian biologist and USFWS, CDFW, and CPUC will be notified. • Vertical buffers would be based on anticipated effects of rotor wash and noise for each class of helicopter (i.e. Light Duty, Medium Duty, and Heavy Duty). Surveys and monitoring of the active buffer areas will be completed by a CPUC-approved biologist before, during, and after helicopter use in the vicinity of active buffers and reported to the CPUC. • The Nesting Bird Management Plan will include the minimum requirements to become a CPUC-approved avian biologist and biological monitor for nesting birds, including education, experience in conducting biological surveys, and experience with specific birds in the project area. • The CPUC-approved biological monitor will halt work if it is determined that active nesting will be disturbed by construction or restoration activities until further direction or approval to work is obtained from the CPUC and/or appropriate wildlife agencies. <p>The Nesting Bird Management Plan will be submitted to the USFWS, CDFW, and CPUC for review and comment no more than six months prior to the start of construction, with the intent that the plan will be finalized no more than two months prior to the start of construction. The final plan will be implemented during construction and restoration activities. A Nesting Tracker will be maintained and updated weekly during the nesting bird season, and will be submitted to USFWS, CDFW, and CPUC on a monthly basis. This Nesting Tracker will contain data such as species, location, buffer, monitor name, and status of the nest.</p>			<p>implement the Plan as required during construction.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>MM BR-7: Coastal Cactus Wren Avoidance.</p> <p>a. Preconstruction Surveys. CPUC-approved biologists will perform preconstruction surveys in potential coastal cactus wren habitat within 200 feet of each discrete work area and record the location and quality. Preconstruction surveys will take place within two weeks prior to the start of ground disturbance or when work has lapsed for longer than two weeks.</p> <p>b. Conservation. Should suitable coastal cactus wren habitat patches be identified in or within 200 feet of work areas, the areas will be avoided to the greatest extent possible during construction. Habitat includes, but is not limited to, mature cholla or prickly-pear cactus typically less than 1 meter in height, interspersed with California sagebrush, California buckwheat, and blue elderberry. Habitat patches may be as small as approximately 1acre. Habitat patches located in close proximity to construction activities should be protected by physical barriers, such as rope or signage.</p> <p>c. Habitat Restoration Plan for Coastal Cactus Wren Habitat. Prior to construction of the proposed project, and with the coordination and review of USFWS and CDFW, SDG&E will prepare a habitat restoration plan for coastal cactus wren habitat. Details of the restoration plan will be finalized pending consultation between the applicant, SDG&E, USFWS, and CDFW. The restoration plan will be prepared by a qualified botanist familiar with this vegetation association. The plan will include the following elements: planting/reseeding species mentioned above in correct ratios so as to be suitable for coastal cactus wren; monitoring plan and schedule, including duration and performance criteria; and any specific measures that will be required to ensure success of the restoration effort. Suitable habitat will be replaced at a 1:1 ratio, and if SDG&E chooses to implement the restoration effort outside the project area, it must be no more than 3 miles away from the project area.</p> <p>d. Take Avoidance. Should biologists identify nesting coastal cactus wrens at any time during construction, biologists will implement a buffer around the nest that sufficiently protects the nesting pair from disturbance caused by construction activities, as determined by the project-specific Nesting Bird Management Plan. The nest should be monitored regularly according to methods outlined in the Nesting Bird Management Plan and the buffer must remain in place until construction is complete or the nest is no longer active.</p>	<p>Pre-Construction and during Construction and Restoration</p>	<p>Not Applicable</p>	<p>Coastal Cactus Wren habitat assessment was included in the Nesting Bird Management approved by the CPUC on 8/16/2017. Per the habitat assessment it has been determined that no suitable habitat for this species occurs within 200 feet of the NTP -1 activities.</p>
<p>MM BR-8: Western Burrowing Owl Impacts Reduction Measures.</p> <p>a. Preconstruction Surveys for Burrowing Owls. Prior to ground disturbance, a CPUC-approved biologist will conduct preconstruction take-avoidance surveys for burrowing owls within 150 meters of project areas in suitable habitat no more than 14 days prior to ground-disturbing activities according to methods outlined in the CDFW's 2012 (or most recent) Staff Report on Burrowing Owl Mitigation (CDFG 2012). Surveys will provide data on whether burrowing owls occupy the site and, if so, whether the owls are actively nesting.</p> <p>b. Burrowing Owl Impact Avoidance. If pre-construction take-avoidance surveys detect the presence of any active burrowing owl burrows during breeding season, the burrows will be</p>	<p>Pre-construction and during Construction and Restoration</p>	<p>Applicable</p>	<p>Pending. A preconstruction clearance survey will be conducted no more than 14 days prior to the start of construction and the measure will be Implemented during construction as required.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>avoided, and construction activities within 150 meters will be enclosed by construction fencing. Buffer sizes are outlined in the CDFW’s Staff Report on Burrowing Owl Mitigation. Active burrowing owl burrows should be monitored regularly according to methods outlined in the Nesting Bird Management Plan, and buffers should remain in place until the nest fledges or fails.</p> <p>c. Eviction. If, in consultation with the CDFW, it is determined that project activities require removal of occupied burrows, or burrows potentially occupied by burrowing owls, eviction and burrow closure may be required to ensure against “take” of owls or nests. However, eviction is required, it will occur only after consulting with CDFW and CDFW approval of a Burrowing Owl Exclusion Plan. Monitoring will be conducted to ensure take is avoided during eviction procedures. Owls may not be evicted or captured without prior authorization from the CDFW.</p>			
<p>MM BR-9: Invasive Plant Control Measures. The applicant will use standard BMPs to avoid the introduction and spread of controllable invasive plant species such as tamarisk (<i>Tamarix</i> sp.) and giant reed (<i>Arundo donax</i>) during construction of the project. Proper handling during construction will include the following:</p> <ul style="list-style-type: none"> • All vehicles and equipment will be cleaned prior to arrival at the work site. • Crews, with construction inspector oversight, will ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots, or rhizomes before the vehicles and equipment are allowed use of access roads. • Straw or hay bales used for sediment barrier installations or mulch distribution will be obtained from state-cleared sources that are free of invasive weeds. <p>The applicant will develop an Invasive Plant Management Plan to outline the methods that will be employed to prevent the spread of invasive plants on site. This plan will be submitted to the CDFW and CPUC for review and comment no more than six months prior to the start of construction, with the intent to produce a final draft of the plan no later than two months prior to the start of construction.</p>	Pre-construction, during Construction and Restoration	Applicable	Complete. Invasive Plant Control Plan was approved by the CPUC on 8/14/2017. CDFW stated they had no comments on the Plan on 7/19/2017.
<p>MM BR-10: Mitigation Plan Development. To ensure that the project is consistent with the SDG&E Subregional NCCP/HCP, the applicant will prepare and implement a Mitigation Plan for the project. The Mitigation Plan will:</p> <ul style="list-style-type: none"> • Detail a consultation process in accordance with Section 6.2.1 of SDG&E’s NCCP/HCP. Alternatively, an updated process and timeline can be developed as allowed by both USFWS and CDFW. • Require SDG&E to provide the CPUC with written confirmation from USFWS and CDFW that the consultation process has been carried out to the satisfaction of the agency and is consistent with the SDG&E Subregional NCCP/HCP. 	Pre-construction and during Construction	Not Applicable	All NTP-1 activities will not occur within natural areas subject to the NCCP.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> • Include a summary of the policies and procedures in the SDG&E Subregional NCCP/HCP that are relevant to other HCPs/NCCPs, conservation plans, and public or private conservation or preserve areas, including, but not limited to: <ul style="list-style-type: none"> – Operational protocols used in sensitive habitat areas; – Mitigation for temporary and permanent impacts, including habitat enhancement and mitigation credits; – Coordination and consultation procedures with the USFWS and CDFW; – Definition of preserve area according to the SDG&E Subregional NCCP/HCP; – Identification and mapping of areas that may qualify as a preserve area within 100 feet of any project component; and – A review of locations where there may be potential conflicts among conservation plans. • This plan will be submitted to the USFWS, CDFW, and CPUC for review and comment with the intent to produce a final draft of the plan, approved by the CPUC, no less than two months prior to the start of construction. Implementation of the Mitigation Plan, excluding any restoration or other physical habitat improvements that are required as a result of the agency consultation, will be implemented prior to the start of construction. 			
CULTURAL RESOURCES			
<p>APM CUL-1: Worker Training for Cultural Resources. Prior to the initiation of construction or ground-disturbing activities, all SDG&E, contractor, and subcontractor personnel would 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 resources and paleontological resources and to recognize possible buried resources. Training would inform all construction personnel of the anticipated procedures that would be followed upon the discovery or suspected discovery of archaeological materials, including Native American remains, and their treatment, as well as of paleontological resources.</p>	Pre-construction, during Construction and Restoration	Applicable	Pending. Worker Training has been developed and submitted to the CPUC on 07/07/2017. All Project personnel will be required to participate in the SEAP prior to starting work on the Project. SEAP administration will remain ongoing throughout construction for all new Project personnel.
<p>APM CUL-2: Cultural Resource Monitoring. A qualified archaeologist would attend preconstruction meetings, as needed, and a qualified archaeological monitor would monitor ground disturbing activities in the vicinity of all known cultural resources within the proposed project area. The requirements for archaeological monitoring would be noted on the construction plans. The archaeologist’s duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to Archaeological Resource Management Reports guidelines.</p>	During Construction and Restoration	Applicable	A qualified archeologist will be present as necessary for activities associated with NTP-1 in compliance with the Project’s Cultural Resources Construction Monitoring Plan approved by the CPUC on 6/26/2017.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>APM CUL-3: Avoid Known Cultural Resources. Known cultural resources that can be avoided would be demarcated as Environmentally Sensitive Areas. Construction crews would be instructed to avoid disturbance of these areas.</p>	<p>Pre-construction and during Construction</p>	<p>Applicable</p>	<p>Known cultural resources will be demarcated as Environmentally Sensitive Areas in compliance with the Project's Cultural Resources Construction Monitoring Plan approved by the CPUC on 6/26/2017.</p>
<p>APM CUL-4: Unanticipated Cultural Finds. In the event that cultural resources are discovered, the archaeologist would have the authority to divert or temporarily halt ground disturbance to allow evaluation of potentially significant cultural resources. The archaeologist would contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The archaeologist, in consultation with SDG&E's Cultural Resource Specialist, would determine the significance of the discovered resources. SDG&E's Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program would be prepared and carried out to mitigate impacts.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement APM CUL-4 if unanticipated cultural resources are discovered in compliance with the Project's Cultural Resources Construction Monitoring Plan approved by the CPUC on 6/26/2017.</p>
<p>APM CUL-5: Curate Cultural Discoveries. All collected cultural remains would be cataloged and permanently curated with an appropriate institution. All artifacts would be analyzed to identify function and chronology as they relate to the history of the area. Faunal material would be identified as to species.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>If necessary, SDG&E will collect, catalog, and curate cultural discoveries in compliance with the Project's Cultural Resources Construction Monitoring Plan approved by the CPUC on 6/26/2017.</p>
<p>APM CUL-6: Archeological Monitoring Results Report. An archaeological monitoring results report (with appropriate graphics), which describes the results, analyses, and conclusions of the monitoring program, would be prepared and submitted to SDG&E's Cultural Resource Specialist, SDG&E's Environmental Project Manager, and the CPUC. Any new cultural sites or features encountered would be recorded with the <i>SCCIC</i> or <i>SCIC</i>.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>APM CUL-6 will be implemented by SDG&E as necessary and in compliance with the Project's Cultural Resources Construction Monitoring Plan approved by the CPUC on 6/26/2017.</p>
<p>APM CUL-7: Monitoring by Native Americans. Native American monitoring may be implemented if transmission line construction has the potential to impact identified and mapped traditional locations and places. The role of the Native American monitor would be to represent tribal concerns and communicate with the tribal council. Appropriate representatives would be identified based on the location of the identified traditional location or place.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 is not associated with transmission line construction. Work associated with NTP-1 will not affect a traditional location or place.</p>
<p>APM CUL-8: Paleontological Monitoring. A paleontological monitor would work under the direction of a qualified project paleontologist and would be on site to observe excavation operations that involve the original cutting of previously undisturbed deposits with high</p>	<p>During Construction</p>	<p>Applicable</p>	<p>A paleontological monitor will be onsite during all excavation activities in compliance with the Project's</p>

South Orange County Reliability Enhancement Project
NTP-1 Request

October 2017
Page 11 of 35

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
paleontological resource sensitivity. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.	and Restoration		Paleontological Monitoring and Treatment. CPUC approved the Plan on 08/29/2017.
<p>APM CUL-9: Discovery of Fossils. In the event that fossils are encountered, the paleontological monitor would have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. The paleontologist would contact SDG&E’s Cultural Resource Specialist and Environmental Project Manager at the time of discovery. The paleontologist, in consultation with SDG&E’s Cultural Resource Specialist, would determine the significance of the discovered resources. SDG&E’s Cultural Resource Specialist and Environmental Project Manager must concur with the evaluation procedures to be performed before construction activities are allowed to resume. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on site. When fossils are discovered, the paleontologist (or paleontological monitor) would recover them along with pertinent stratigraphic data. In most cases, this fossil salvage can be completed in a short period of time. Because of the potential for recovery of small fossil remains, such as isolated mammal teeth, recovery of bulk sedimentary matrix samples for off-site wet screening from specific strata may be necessary, as determined in the field. Fossil remains collected during monitoring and salvage would be cleaned, repaired, sorted, cataloged, and deposited in a scientific institution with permanent paleontological collections, and a paleontological monitoring report would be written.</p>	During Construction and Restoration	Applicable	APM CUL-9 will be implemented as necessary activities in compliance with the Project’s Paleontological Monitoring and Treatment Plan, which was approved by the CPUC on 08/29/2017.
<p>APM CUL-10: Building of Distinction Requirements. The applicant proposes to take the following steps found in Council Policy 602, which applies to the alteration, modification, or demolition of “significant” structures:</p> <ol style="list-style-type: none"> 1. Advertise, for a period of three months, that the former utility structure may be available for relocation. 2. Prepare a photographic record of the former utility structure. Photographs will include: <ol style="list-style-type: none"> a. Each elevation; b. Close-ups of any unusual or unique architectural features; and c. Views of the structure from a distance. <p>In addition, measured drawings or plans will be included.</p> <p>If not relocated, allow the removal of any architectural elements of the former utility structure for a period of two weeks at the expense of any local historic interest group or organization removing the element.</p>	Pre-construction	Applicable	<p>Complete. Historic American Building Survey (HABS) photographic documentation showing the elevation, close-ups of architectural features and views from a distance was completed for the former utility structure on August 15, 2017 and submitted to the CPUC on 09/29/2017. NTP-1 does not include the demolition of any significant structures. As described in the Historic Architect Monitoring Plan, currently pending CPUC approval, advertisement is no longer applicable since the former utility structure will not be relocated and there are no architectural elements</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
			that would be appropriate for removal.
<p>MM CUL-1: Supplemental Worker Training for Cultural Resource. As a supplement to APM CUL-1, this measure requires the applicant to incorporate the following specific topics into the pre-construction cultural resource training for all on-site personnel:</p> <ul style="list-style-type: none"> — Describe the role of cultural and paleontological resources monitors and the role of Native American monitors; — Describe the types of cultural and paleontological resources that may be found in the project area; — Describe the potential for human remains to be discovered during ground disturbing activities; and — Describe the penalties associated for breaking the laws relevant to the protection of cultural and paleontological resources. <p>The cultural and paleontological resources training components will be developed by a CPUC-approved cultural resources consultant (see MM CUL-3) and CPUC-approved paleontological consultant (see MM CUL-6). The applicant shall provide a copy of the training material and trainee sign-in sheets to the CPUC prior to construction.</p>	Pre-construction, during Construction, and Restoration	Applicable	Complete. Worker Training has been developed and submitted to the CPUC on 07/07/2017. Trainee sign-in sheets were provided to the CPUC on 10/04/2017. All Project personnel will be required to participate in the SEAP prior to starting work on the Project. SEAP administration will remain ongoing throughout construction for all new Project personnel.
<p>MM CUL-2: Construction Monitoring Plan. Prior to construction, the applicant will submit a Construction Monitoring Plan for the proposed project, prepared by the approved consultant(s) (MM CUL-3) for review and approval by the CPUC. The final Construction Monitoring Plan shall be implemented, as specified, throughout construction and restoration. The Construction Monitoring Plan shall, at a minimum:</p> <ul style="list-style-type: none"> • Identify areas where native soil will be disturbed by construction or restoration of the proposed project or where known cultural resources (APM CUL-2) occur in the project area as areas that will be monitored by a CPUC-approved archaeologist. • Confirm that archeological monitoring will be performed during all ground disturbing activities along Segment 1a of the 230-kV transmission line, Segment A of the 12-kV distribution line, and within the proposed San Juan Capistrano Substation to prevent potential damage to buried Juaneño/Acjachemen deposits. • Describe monitoring procedures that will take place for each project component area, as required. • Describe how often monitoring will occur (e.g., full time, part time, spot checking). • Describe monitoring reporting requirements (APM CUL-6). • Describe the Testing and Evaluation Plans and Data Recovery Plans (APM CUL-4 and APM CUL- 	Pre-construction, during Construction, and Restoration	Applicable	Complete. The Construction Monitoring Plan was approved by the CPUC on 06/26/2017.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
5). <ul style="list-style-type: none"> • Include contact information for those to be notified or reported to. 			
<p>MM CUL-3: Qualified Cultural Resources Consultants. The applicant will retain the services of qualified professional (CPUC-approved) cultural resources consultants who meet or exceed the United States Secretary of the Interior qualification standards for professional archaeologists published in 36 Code of Federal Regulations (CFR) 61 and who have experience working in the jurisdictions traversed by components of the proposed project sufficient to identify the full range of cultural resources that may be found in the proposed project area. The consultants will also have knowledge regarding the cultural history of the proposed project area. The resumes and supporting information for each cultural resource consultant will be submitted to the CPUC for approval. At least one qualified cultural resources consultant must be approved by the CPUC prior to start of construction.</p>	Pre-construction	Applicable	Complete. The CPUC approved a qualified cultural resource consultant on 04/27/2017.
<p>MM CUL-4: Native American Consultation and Participation Planning. As a supplement to APM CUL-7, prior to construction, the applicant will provide evidence to the CPUC that tribes requesting consultation with the applicant regarding the project design and impacts on cultural resources were consulted. In addition, the applicant will provide evidence to the CPUC that tribes that express interest in the project during any phase (i.e., project application through end of construction and restoration) have been given the opportunity to participate in additional cultural resources surveys (MM CUL-5) and/or cultural resources monitoring when performed by a CPUC-approved cultural resources consultant (MM CUL-3).</p> <p>To outline the expected duties and responsibilities of all parties involved, the applicant and a CPUC-approved cultural resources consultant will submit a Native American Participation Plan prior to construction. The final Native American Participation Plan shall be implemented, as specified, throughout construction and restoration. Tribes that have expressed interest in the project prior to construction will be given the opportunity to participate in development of the plan. At a minimum, the plan will specify that:</p> <ul style="list-style-type: none"> • Native American monitors, if approved by a tribe, are expected to participate in worker environmental awareness and health and safety training and follow all health and safety protocols. • Attendance by Native American monitors during construction and restoration of the proposed project is at the discretion of the tribe, and the absence of a Native American monitor, should the tribes choose to forgo monitoring for some reason, will not delay work. • The Native American monitors will have the ability to notify a CPUC-approved cultural resources consultant who has the authority to temporarily stop work (MM CUL-3) if they find a cultural resource that may require recordation and evaluation. 	Pre-construction, during Construction, and Restoration	Applicable	Complete. SDG&E submitted a Native American Monitoring Plan (NAMP) to the CPUC on 07/26/2017 and submitted to the tribes on 07/27/2017. A copy of the 8/14/2017 response received from the Juaneno Band of Acjachemen Nation indicating that they had no comments on the NAMP was submitted to the CPUC on 8/17/2017. The NAMP will be implemented during construction.

South Orange County Reliability Enhancement Project
NTP-1 Request

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> • Interpretation of a find will be requested from Native American monitors involved with the discovery, evaluation, or data recovery of unanticipated finds for inclusion in the final Cultural Resources Report. • The tribes involved with preparation of the Native American Participation Plan will be given the opportunity to participate in the development of Testing and Evaluation Plans and Data Recovery Plans (MM CUL-2) if the development of these plans is required. • Native American monitors approved by a tribe for monitoring work on the project will be notified 30 days prior to start of construction of the various project components. • The Native American monitors will be compensated for their time. If more than one tribal group wishes to participate in the monitoring, SDG&E will work out an agreement for sharing of monitoring compensation. • Define a process to inform tribes of completed cultural surveys and to provide a copy of the survey to interested tribes. 			
<p>MM CUL-5: Additional Cultural Resources Surveys. Prior to issuance of the notice to proceed, the applicant will ensure that qualified archaeological consultants, as specified in MM CUL-3, will conduct intensive-level cultural resources surveys (transects no greater than 10 meters) for all areas to be disturbed that have not already been surveyed for cultural resources and that, prior to the project, had been undisturbed. Surveys shall also include a California Historic Resources Information System search and Native American Heritage Commission Sacred Lands file database search. Reports that specify the research design, methods, and survey results will be submitted to the CPUC for review and must be accepted by the CPUC prior to the start of ground disturbance in the previously unsurveyed areas.</p>	Pre-construction	Not Applicable	The location of all NTP-1 activities, including the San Juan Capistrano Substation, has been previously surveyed; therefore, MM CUL-5 does not apply.
<p>MM CUL-6: Qualified Paleontological Consultants. The applicant will retain the services of qualified professional paleontological consultants with knowledge of the local paleontology and the minimum levels of experience and expertise, as defined by the Society of Vertebrate Paleontology’s Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010). The resumes and supporting information for each paleontological consultant will be submitted to the CPUC for approval. At least one qualified paleontological consultant must be approved by the CPUC prior to start of construction.</p>	Pre-construction	Applicable	Complete. The CPUC approved SDG&E’s qualified paleontological consultant on 04/27/2017.
<p>MM CUL-7: Paleontological Monitoring and Treatment Plan. Prior to start of construction, the applicant will submit a Paleontological Monitoring and Treatment Plan for the proposed project that is prepared by a CPUC-approved paleontological consultant (MM CUL-6) to the CPUC for approval. This plan will be adapted from the Society of Vertebrate Paleontology’s Standard</p>	Pre-construction, during Construction,	Applicable	Complete. The Paleontological Monitoring and Treatment Plan (PMTP) was approved by the CPUC 08/29/2017. The approved PMTP will be implemented during construction.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) to specifically address each project component. In addition, the plan will, at a minimum:</p> <ul style="list-style-type: none"> • Describe the criteria used to determine whether an encountered resource is significant and if it should be avoided or recovered. • Identify construction and restoration impact areas of moderate to high sensitivity for encountering paleontological resources and the shallowest depths at which those resources may be encountered. • Describe methods of recovery, preparation, and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. • Briefly identify and describe the types of paleontological resources that may be encountered. • Describe monitoring procedures that will take place for each component of the project that requires monitoring. • Describe how often monitoring will occur (e.g., full time, part time, spot checking), as well as the circumstances under which monitoring will be increased or decreased. • Describe the circumstances that will result in the halting of work. • Describe the procedures for halting work and for notifying construction and restoration crews when work is to be halted and to be resumed. • Include testing and evaluation procedures for resources encountered. • Describe procedures for curating any collected materials. • Outline coordination strategies to ensure that the CPUC-approved paleontological consultant (MM CUL-6) conducts full-time monitoring of all grading activities in sediments determined to have a moderate to high sensitivity. • Include reporting procedures. • Include contact information for those to be notified or reported to. <p>For sediments of low or undetermined sensitivity, the Paleontological Monitoring and Treatment Plan will specify the level of monitoring necessary. Sediments with no sensitivity will not require paleontological monitoring. The plan will define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors will be defined by an approved (MM CUL-6) paleontologist.</p>	and Restoration		
<p>MM CUL-8: Preservation of Former Utility Structure at Capistrano Substation. The applicant shall incorporate the following design specifications at Capistrano Substation and features shown in Appendix S of this EIR with the purpose to rehabilitate the west wing of the former utility structure at Capistrano Substation per the Interior’s Standards for the Treatment of Historic</p>	Pre-construction, and during Construction	Complete	Complete. NTP-1 activities do not include demolition of the east wing; however, abatement work would involve minor alterations to the

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings:</p> <ul style="list-style-type: none"> • Replacement of the current landscaping with landscaping that returns the existing utility structure’s setting to an earlier appearance. • Construction of an approximately 5-foot-tall retaining wall parallel to the northern and eastern walls of the retained west wing. • Construction of a masonry wall approximately 10 feet tall on the inside of the western perimeter of the substation. When viewed from the exterior, the masonry would vary from 12 to 15 feet in height due to grading behind the substation wall. The northern and southern perimeter walls would remain at approximately 10 feet in height. • The existing utility structure shall remain approximately 4 inches from the western perimeter wall. • The southern and western walls of the retained portion of the existing substation shall be located outside of the secured substation facility and will be visible from Camino Capistrano. The northern and eastern walls of the existing utility structure shall effectively act as part of the substation security wall. • Installation of new steel doors to replace the doors in the southern, eastern, and northern walls of the existing utility structure. The northern and eastern doors will serve as part of the security wall. • Construction of a driveway from the main substation access to the structure’s southern door. • Set back the southern driveway vehicle access gate by approximately 80 feet from Camino Capistrano. • Set back the northern driveway access gate by approximately 35 feet from Camino Capistrano. • The northern and southern vehicular access gate shall be approximately 30 feet wide. Each pair of gates will be made of black wrought iron and be approximately 15 feet in width. • Grading and the phased site development would be similar to that of the Proposed Project Substation. <p>Modifications to the existing utility structure shall include:</p> <ul style="list-style-type: none"> • East Wing Demolition: Retain 12 inches of roof and walls where the east wing intersects the west wing of the existing structure. This will allow the remaining portion of the roof and wall visually to read as a “ghost” of the east wing once it is removed. • West Wing Rehabilitation: 			<p>former utility structure; therefore, the historic architect monitoring plan (HAMP) would be implemented. The HAMP was approved by the CPUC on 10/4/2017. HABS documentation was submitted to the CPUC on 09/29/17. No other preconstruction elements of MM CUL-8 are applicable to NTP-1 activities.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> - Western Wall: the exterior wall, concrete wall iron jacking, and windows will be repaired. Security bars will be installed on all interior windows. - Northern Wall: Deteriorated, non-original, sidelights, and transom windows shall be replaced to match the original. Those that are replaced shall be made from steel rather than wood for increased security. Door assembly does not require glazing, but shall be constructed exclusively of steel following the original pattern. This wall and replacement door will only be accessible from the interior. - Eastern Wall: The interior door shall be replaced with a new exterior door that matches the original but is designed for exposure to the elements. Glazing is not required for the door or existing windows, but design should follow the original pattern. The eastern wall, window, and door will only be accessible from the interior. - Southern Wall: Deteriorated, non-original, sidelights, and transom windows shall be replaced to match the original. Those that are replaced shall be made from steel rather than wood for increased security. Door assembly does not require glazing, but shall be constructed exclusively of steel following the original pattern. Due to visibility from the street, the door should include translucent wire glass at the transom. Where glazing occurs at the transom, security bars shall be installed on the interior. - Interior Window Sills: Where water damage has occurred, windows sills shall be repaired. - Interior Crane: The movable crane shall be retained. - Lighting: A lighting plan shall be developed and implemented. It will include manually operating exterior wall sconces on the north and south walls. <p>The applicant shall prepare and implement a historic architect monitoring plan. The plan shall include, but shall not be limited to, the following information:</p> <ul style="list-style-type: none"> • Qualifications of the historic architect monitor (must meet the Secretary of the Interior’s Professional Qualifications Standards); • Activities that shall be monitored by the historic architect monitor; • Authority given to the historic architect monitor to halt construction on the former utility structure in order to prevent damage to the structure; • Procedures that the historic architect monitor will follow to halt construction and the procedures to restart construction; and • Reporting procedures for the historic architect. <p>The historic monitoring plan shall be submitted to the CPUC for approval at least six weeks prior to start of construction on the former utility structure.</p>			

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> The applicant shall also prepare a Historic American Building Survey (HABS) photographic documentation for the utility structure before the east wing is removed. The applicant shall provide the HABS documentation to the CPUC at least six weeks prior to start of construction on the former utility structure. 			
GEOLOGY, SOILS, AND MINERAL RESOURCES			
<p>APM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures. A geologic hazard evaluation was conducted by URS in 2008 to evaluate the pole locations along the Proposed Project transmission line route for the presence of geologic hazards that may affect the new towers and poles. The geologic hazard evaluation indicated the presence of geologic conditions potentially susceptible to liquefaction at the locations of proposed Pole Nos. 8, 9 and 10. Prior to construction, an engineering-level geotechnical investigation would be performed at these locations under the supervision of a California Certified Engineering Geologist or California licensed Geotechnical Engineer to further evaluate the liquefaction potential at each of these pole locations and to develop design measures to minimize the potential for damage to Proposed Project structures in the event of strong ground shaking. Recommendations of the geotechnical investigation would be incorporated into the final design for these structures. These recommendations would include augmented grading practices, expanded erosion control measures and deeper foundations.</p>	Pre-construction, during Construction, and Restoration	Not Applicable	The construction of poles and towers are not included in NTP-1.
<p>APM GEO-2 Conduct an Engineering-level Geotechnical Survey for Landslides and Implement Recommended Design Measures to Ensure Slope Stability is not Impacted and the Potential for Damage to Protect Structures is Minimized. A geologic hazard evaluation was conducted by URS in 2008 to evaluate the structure locations along the Proposed Project transmission line route for the presence of geologic hazards that may affect the new towers and poles. The geotechnical hazard evaluation identified areas with recent and ancient landslides along the Proposed Project transmission line route due to unstable slope conditions in portions of both the Capistrano and Monterey formations Prior to construction, an engineering-level geotechnical investigation would be performed at each pole location along the transmission line route that is in or near a mapped landslide or other unstable slope condition. This investigation would be performed under the supervision of a California Certified Engineering Geologist or California licensed Geotechnical Engineer, and would identify protection measures to be designed and implemented to ensure that the Proposed Project does not materially increase slope stability risks and to minimize potential for damage to Proposed Project structures in the event of landslides. These recommendations would include augmented grading practices, expanded erosion control measures and deeper foundations.</p>	Pre-construction, during Construction, and Restoration	Not Applicable	The construction of poles and towers are not included in NTP-1.
<p>MM GEO-1: Conduct an Engineering-level Geotechnical Investigation for Liquefaction Potential and Implement Recommended Design Measures. Prior to construction, an engineering-level</p>	Pre-construction,	Not Applicable	The construction of poles and towers are not included in NTP-1.

South Orange County Reliability Enhancement Project
NTP-1 Request

October 2017
Page 19 of 35

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During
Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>geotechnical investigation shall be performed at Pole Nos. 1a through h5a under the supervision of a California Certified Engineering Geologist or California licensed Geotechnical Engineer to further evaluate the liquefaction potential at each of these pole locations and to develop design measures to minimize the potential for damage to proposed project structures in the event of strong ground shaking. Recommendations of the geotechnical investigation shall be incorporated into the final design for these structures.</p>	<p>during Construction, and Restoration</p>		
GREENHOUSE GASES			
<p>APM GHG-1: Operations Emissions Controls. SDG&E developed this APM to ensure that sulfur hexafluoride is properly managed. SDG&E would implement its existing sulfur hexafluoride mitigation strategies during the operation and maintenance of sulfur hexafluoride-containing equipment installed as part of the proposed project. These strategies include:</p> <ul style="list-style-type: none"> • Recording company-wide sulfur hexafluoride purchases, use, and emissions rates to comply with the USEPA’s requirements for Electrical Transmission and Distribution Equipment Use (Mandatory Reporting of Greenhouse Gases, 40 CFR Part 98, Subpart DD) and the CARB’s Regulation for Reducing Sulfur Hexafluoride Emissions from gas-insulated switchgear (Code Regs. Tit. 17, § 95350-95359); • Implementing a sulfur hexafluoride recycling program; • Training employees on the safety and proper handling of sulfur hexafluoride; • Continuing to report GHG emissions with the Climate Registry; and • Implementing SDG&E’s sulfur hexafluoride leak detection and repair program. This program includes monthly visual inspections of each GCB, which includes checking pressure levels within the breaker and recording these readings in SDG&E’s Substation Management System. During the installation or major overhaul of any GCB, the unit is tested over a 24-hour period to ensure no leaks are present. Minor overhauls of each GCB are conducted every 36 to 40 months to check overall equipment health. This process includes checking gas pressure, moisture ingress, and sulfur hexafluoride decomposition. If the GCB fails any of these checks, the unit is checked for leaks and repaired. In addition, all GCBs are equipped with a gas-monitoring device and alarm that automatically alerts SDG&E’s Grid Operations Center. If gas pressure approaches minimum operating levels, an alarm is immediately reported to SDG&E’s Substation Construction and Maintenance Department. The GCB is usually inspected for leaks within 24 hours of such an alarm. SDG&E’s leak detection practice includes the following three methodologies: <ul style="list-style-type: none"> – Spraying a leak-detection agent onto common leak points—including O rings, gaskets, and fittings; 	<p>During Operation</p>	<p>Not Applicable</p>	<p>NTP-1 activities do not involve installation of equipment containing sulfur hexafluoride.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> - Using a field-monitoring device (sniffer) to detect the presence of sulfur hexafluoride gas; and - Using a laser-detection camera to detect the presence of sulfur hexafluoride gas when the above two methods are unsuccessful in finding a leak. 			
HAZARDS AND HAZARDOUS MATERIALS			
<p>APM HAZ-1: Conduct Environmental Site Assessment. Prior to the start of earth disturbance activities at the upper yard portion of the existing Capistrano Substation site, a Phase II Environmental Site Assessment (soil sampling) would be performed and, if any contaminated soil is found to be present, contaminated soils would be managed, removed, transported, and disposed of in accordance with all applicable laws, ordinances and safety standards. The Environmental Site Assessment would be completed pursuant to American Society for Testing and Materials International standard requirements.</p>	Pre-construction	Not Applicable	NTP-1 does not include work activities in the upper yard portion of the existing Capistrano Substation site.
<p>APM HAZ-2: Hazardous Materials and Waste Management Plan. The applicant would prepare a project-specific Hazardous Materials and Waste Management Plan (HMWMP) following final CPUC project approval and be submitted to the CPUC prior to issuance of any applicable Notice to Proceed for the project. Handling, recycling, and waste transportation, and temporary waste storage procedures would be outlined within the HMWMP. The project-specific HMWMP would include site-specific procedures and would be developed based on SDG&E standards and applicable hazardous materials laws, standards, and regulations. Sampling and cleanup levels would be established in the HMWMP as follows:</p> <ul style="list-style-type: none"> • Confirmation samples would be taken to ensure that site conditions are consistent with current and proposed land uses (i.e., electric substation); • Confirmation samples would be taken, utilizing industry standard testing methods (e.g. EPA Methods), for appropriate site specific contaminants of concern; • Final sampling procedures would be included within the project-specific HMWMP; and • Final cleanup levels would be identified in the HMWMP and be consistent with acceptable levels for Commercial Industrial land uses. <p>Plans for the unanticipated discovery of contaminated soil and/or groundwater during construction would be included in the HMWMP, including:</p> <ul style="list-style-type: none"> • Procedures in response to the discovery of contaminated soil or groundwater, including those for stopping work, securing the contaminated area, preventing the spread of contamination, and appropriate waste management (testing, profiling, shipping disposal); 	Pre-construction, during Construction, and Restoration	Applicable	Complete. The Hazardous Materials and Waste Management Plan was submitted on 08/02/2017 and approved by the CPUC on 09/07/17.

South Orange County Reliability Enhancement Project
NTP-1 Request

October 2017
Page 21 of 35

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> • Training requirements for construction workers performing excavation activities; • Dewatering procedures; and • Procedures for notifying SDG&E and agency personnel in the event of the discovery of contaminated soil and/or groundwater. <p>The applicant’s outline of environmental procedures for management of the following would be addressed in the HMWMP:</p> <ul style="list-style-type: none"> • Asbestos Management; • Hazardous Materials Transportation Security Plans; • Hazardous Materials and Waste Management; • Hazardous Material and Waste Shipping; • Hazardous Waste Minimization Plans; and • Field Guidelines for Emergency Incidents. <p>Soil sampling and building materials sampling results from applicable Environmental Site Assessments would be applied to development of the HMWMP.</p>			
<p>APM HAZ-3: Personal Protection Equipment. Specialized crews would be utilized to conduct any remediation (safe removal of contaminants) at the Capistrano Substation site prior to actual construction of the proposed project commencing. Proper personal protection equipment would be utilized by all remediation workers that may come into contact with known contaminated soil or hazardous building materials. Personal protection equipment would be determined based upon the nature of the contamination present at any given portion of the substation site and would comply with all applicable CalOSHA standards.</p>	During Construction and Restoration	Applicable	SDG&E will implement this measure during NTP-1 activities and in accordance with the Project’s Hazardous Material and Waste Management Plan.
<p>APM HAZ-5: Recycling and Reuse. It is SDG&E’s practice to reuse or recycle all old structures/ poles, materials, and components following the retirement of substations, transmission lines, and structures/poles. Whatever cannot be reused or recycled is disposed of at an appropriate facility pursuant to all applicable laws.</p>	During Construction and Restoration	Applicable	SDG&E will implement this measure during NTP-1 activities and will recycle or reuse materials as feasible.
<p>APM HAZ-6: Fire Control. Construction restrictions would occur during times of high fire threat such as Red Flag Warnings issued by the National Weather Service or other severe fire weather conditions as identified by SDG&E.</p> <p>Consistent with SDG&E’s Electric Standard Practice 113.1 and the project-specific fire plan, prior to starting construction activities, SDG&E would clear dead and decaying vegetation from proposed project work areas where personnel are active or where equipment is in use or being</p>	During Construction and Restoration	Applicable	The Construction Fire Prevention Plan was approved by the CPUC on 07/12/2017.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>stored within ROWs, staging areas, stringing sites, and access roads. Cleared dead and decaying vegetation would either be removed or chipped and spread on site.</p> <p>The project-specific fire plan would requirements for equipping diesel and gasoline operated engines with spark arrestors, carrying emergency fire suppression equipment, furnishing a water truck on or immediately adjacent to the proposed project work area, restricting smoking and vehicle idling, construction restrictions during Red Flag Warning periods (as applicable); and conducting pre-activity tailgate meetings that include fire safety discussions.</p>			
<p>MM HAZ-1: Hazardous Substances Contamination Prevention Plan. Prior to construction, the applicant shall prepare and implement a Hazardous Substances Contamination Prevention Plan supplementing the Hazardous Material Business Plan to prevent the release of hazardous materials and hazardous waste. The plan will include the following requirements and procedures:</p> <ul style="list-style-type: none"> • Training requirements for construction workers in appropriate work practices, including spill prevention and response measures. Additional training requirements for those performing excavation activities shall be required and shall include training on types of contamination (e.g., petroleum hydrocarbons, lead, asbestos, and <i>hazardous materials</i> (as defined by the California Health and Safety Code) and identifying potentially hazardous contamination (e.g., stained or discolored soil and odor). • Contain all hazardous materials at work sites and properly dispose of all such materials. <ul style="list-style-type: none"> – Hazardous materials shall be stored on pallets within fenced and secured areas and protected from exposure to weather and further contamination. – Fuels and lubricants shall be stored only at designated staging areas. • Maintain hazardous material spill kits for small spills at all active work sites and staging areas. Thoroughly clean up all spills as soon as they occur. • Store sorbent and barrier materials at all construction staging areas, including staging areas used during activities for decommissioning. Sorbent and barrier materials will be used to contain runoff from contaminated areas and from accidental releases of oil or other potentially hazardous materials to prevent the runoff from entering the storm drainage system. • Perform all routine equipment maintenance at a shop or at the staging area and recover and dispose of wastes in an appropriate manner. • Monitor and remove any vehicles with chronic or continuous leaks from use and complete repairs before returning them to operation. • Store shovels and drums at the staging areas. If small quantities of soil become contaminated, use shovels to collect the soil and store in drums before proper off-site disposal. Large quantities of contaminated soil may be collected using heavy equipment and stored in drums 	<p>Pre-construction, during Construction, and Restoration</p>	<p>Applicable</p>	<p>Complete. The Hazardous Materials and Waste Management Plan supplants the Hazardous Substances Contamination Prevention Plan and was approved by the CPUC on 09/07/17.</p>

South Orange County Reliability Enhancement Project
NTP-1 Request

October 2017
Page 23 of 35

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>or other suitable containers prior to disposal. Should contamination occur adjacent to staging areas because of runoff, shovels and/or heavy equipment shall be used to collect the contaminated material.</p> <ul style="list-style-type: none"> • Procedures for transporting, shipping, and disposal of hazardous waste. • Procedures for managing asbestos containing material. • Procedures for notifying applicant and agency personnel in the event of the discovery of contaminated soil and/or groundwater. Contact information for federal, regional, and local agencies, the applicant’s environmental coordinator(s) responsible for the cleanup of contaminated soil or groundwater, and licensed disposal facilities and haulers. • Procedures for dewatering, including storage, testing, treatment, and disposal requirements and dewatering BMPs with reference to the applicant’s Stormwater Pollution Prevention Plan (SWPPP). <p>This plan will be submitted to the CPUC for review and approval 30 days prior to the start of project construction.</p>			
<p>MM HAZ-2: Contaminated Materials from MCB Camp Pendleton. Excavation, grading, or removal of any materials within MCB Camp Pendleton boundaries shall be accomplished in accordance with EPA Best Management Practices for Outdoor Shooting Ranges (EPA-902-B-01-001), RCRA, the Clean Water Act, 40 CFR 260 (Federal Hazardous Waste Regulations), and California Title 22 (California Hazardous Waste Regulations). All work shall be accomplished with every effort to prevent the spread of any potential contamination or release of any potential existing contaminants to the environment in accordance with all federal, state, and local laws, regulations and instructions. Prior to the removal of any soil or wood and construction debris that has been used in live fire training and received impact from rounds, the soil or debris shall be sampled for appropriate hazardous in accordance with all federal, state, and local laws, regulations, and instructions. Also, prior to the removal of any wood and construction debris that has been used in live fire training and received impact from rounds, the debris should be sampled for lead and other constituents. If the soil, wood, or debris is determined to be hazardous waste, it will be handled and disposed of in accordance with applicable hazardous waste regulations. All hazardous waste manifests shall be signed by the Hazardous Waste Branch, AC/S Environmental Security. Solid lead or copper removed from the base shall be recycled in accordance with the base Qualified Recycling Program regulations.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include activities on MCB Camp Pendleton.</p>
<p>MM HAZ-3: Worker Safety Training. As part of the worker environmental awareness program, the applicant will prepare a safety training module, in coordination with an appropriate representative from MCB Camp Pendleton, to inform all on-site personnel of the active military training activities occurring within MCB Camp Pendleton and the potential hazards associated</p>	<p>Pre-construction and during Construction</p>	<p>Not Applicable</p>	<p>NTP-1 does not include activities on MCB Camp Pendleton.</p>

South Orange County Reliability Enhancement Project
NTP-1 Request

October 2017
Page 24 of 35

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>with working at Talega Substation. The worker environmental awareness program shall include training on how to identify unexploded ordinance and what procedures shall be followed if potential unexploded ordinance is identified, including the "Three R's" method: Recognize, immediately Retreat, and Report to the Provost Marshal's Office at (760) 725-3888 or dial 911 immediately. The applicant shall provide a copy of the training material and trainee sign-in sheets to the CPUC prior to construction.</p>			
<p>MM HAZ-4: Fire Prevention and Emergency Response Plan. The applicant will develop and implement a Fire Prevention and Emergency Response Plan. This plan, and a record of contact and coordination with the Orange County Fire Authority (OCFA), will be submitted to the CPUC for review and approval 30 days prior to the start of construction of the proposed project. The plan will describe fire prevention and response practices that the applicant will implement during construction of the proposed project to minimize the risk of fire and, in the case of fire, provide for immediate suppression and notification. The plan will include:</p> <ul style="list-style-type: none"> • Fire prevention and response practices, including the proper dispensing and storage of gasoline, diesel, and other fuels and combustible chemicals; power tool and equipment use; emergency access; fire suppression equipment and training; vegetation clearing; designated parking areas; appropriate climatic conditions and designated areas to perform welding or blow torch activities and other hot-work activities; and ceasing of any or all work activities, including helicopter use, as directed by the OCFA or other applicable fire department representatives. • Communication protocols for on-site workers to coordinate with local agencies and emergency personnel and for the applicant's environmental health and safety personnel to coordinate with on-site workers in the event of fire, flood, or other emergencies or increased risk of emergency during construction or operation of the project. • The Project Construction Manager, Contract Administrators, and/or Site Foreman will be present at each worksite during construction activities, and it will be their responsibility to monitor the contractor's fire-prevention activities. The Project Construction Manager, Contract Administrators, and/or Site Foreman will have full authority to stop construction as needed to prevent fire hazards. The Project Construction Manager, Contract Administrators, and/or Site Foreman responsibilities will include: <ul style="list-style-type: none"> - Maintain a complete copy of the Fire Prevention and Emergency Response Plan; - Serve as a point of contact for fire departments in the event of fire or other emergency; 	<p>Pre-construction, during Construction, and Restoration</p>	<p>Applicable</p>	<p>Complete. The Construction Fire Prevention and Emergency Response Plan was approved by the CPUC on 05/25/2017.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> - Manage the prevention, detection, control, and extinguishing of fires started accidentally as a result of construction activity; - Review site-specific fire prevention and emergency response plans with construction personnel prior to starting work in each project area; - Ensure that all construction personnel are trained in fire safety measures relevant to their responsibilities. At minimum, construction personnel will be trained in fire prevention and emergency reporting. Each member of the construction work force will be trained and equipped to extinguish small fires (i.e., the fire can be controlled or extinguished by portable fire extinguishers, small hose systems, or portable water supplies without the need for protective clothing or breathing apparatus); - Be equipped with radio and cellular telephone access for the duration of each work day; - Ensure that all construction personnel are provided with operational radio and/or cellular telephone access to allow for immediate reporting of fires or other emergencies and ensure that communication pathways and equipment are tested and confirmed operational each day prior to initiating construction activities at each worksite; - Maintain an updated key personnel and emergency services contact (telephone and email) list onsite and available to construction personnel; and - Construction workers will immediately report all fires to the nearest Fire Risk Manager. <p>The required fire suppression equipment, tools, and other materials to be included with each construction vehicle on the Project.</p>			
<p>MM HAZ-5: Discovery of an Unrecorded Oil or Gas Well. If an unrecorded oil and gas well is discovered during construction of the proposed project and the well is located within 50 feet of a construction disturbance area, the applicant shall immediately cease work within 50 feet of the well and notify the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) Cypress District Office. Work shall not resume within 50 feet of the unrecorded well until DOGGR has determined appropriate actions to be taken and has given written notice of approval for work to resume.</p>	During Construction and Restoration	Applicable	SDG&E will implement this measure during NTP-1 activities as needed.
HYDROLOGY AND WATER QUALITY			
<p>MM WQ-1: Pesticide Application. If pesticides are used during construction or operations, they shall be applied in accordance with Federal Insecticide, Fungicide, and Rodenticide (FIFRA) labels. Applicators shall be appropriately trained and shall be certified by the California Department of Pesticide Regulation. Prior to any use of pesticides, the type of pesticides proposed for use shall be approved by the CPUC. Prior to each pesticide application the National Weather Service (forecast.weather.gov) shall be consulted, and no pesticides shall be applied if the chance of rain</p>	During Construction and Restoration	Applicable	SDG&E will implement this measure during NTP-1 activities as needed.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
exceeds 70% within 24 hours of the proposed application time and location. Records of type and amount of pesticides used and locations of application shall be kept and submitted to the CPUC on a monthly basis during construction.			
NOISE AND VIBRATION			
<p>APM NOISE-1: Nighttime and Weekend Activities. Any endeavors during the construction phase wherein nighttime and/or weekend activities are necessary (such as due to Caltrans transportation constraints for conductor stringing (I-5) or oversized/ overweight loads or CAISO outage constraints) would be limited to the extent feasible so that noise would not exceed the pertinent maximum noise level limits or the hourly L50 limits when measured at the nearest residential property. For example, to minimize potential noise disturbances during nighttime deliveries of transformers, the applicant would make every reasonable effort to minimize the duration of trucking activities at the project site. This would entail pulling delivery vehicles onto the project site, parking them overnight, and unloading/installing the item(s) during normal daytime construction hours. If nighttime or weekend activities cannot be conducted to meet the city’s noise standards, SDG&E would communicate the exception to the appropriate local agency at least 24 hours in advance of conducting work that may exceed the threshold(s).</p>	During Construction and Restoration	Applicable	Night and weekend work is not anticipated to be necessary during NTP-1 activities; however, SDG&E will implement this measure as needed.
<p>MM NV-1: Nighttime and Weekend Construction Noise Controls. Before performing any construction activities required during periods of time not allowed by local ordinances (i.e., nighttime and weekends), the applicant will:</p> <ul style="list-style-type: none"> • Obtain authorization from the local jurisdiction where work will be performed (city or county, as applicable) prior to initiating work at night and on weekends; • Notify occupants of the sensitive receptors properties located within 230 feet of the work a minimum of one week prior to the potential activities and their anticipated duration; • Ensure that noise levels will not exceed exterior noise standards of 55 A-weighted decibels (dBA) at the property boundary during the period of 6:00 p.m. to 10 p.m. and 45 dBA between 10 p.m. and 7 a.m.; • Minimize the duration of trucking activities at work sites to less than 30 minutes, when feasible; • Monitor noise levels during a cumulative period of more than 30 minutes in any hour (L₅₀) and maximum noise levels (L_{max}) at the nearest residential property boundary during the period when nighttime or weekend construction is performed; • Report noise levels (hourly L₅₀ and L_{max}) measured at the nearest residential property to the local jurisdiction (city or county, as applicable) and the CPUC within one week. Noise level measurements shall be conducted and reported in compliance with the City of San Juan 	During Construction and Restoration	Applicable	Night and weekend work is not anticipated to be necessary during NTP-1 activities; however, SDG&E will implement this measure as needed.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>Capistrano and City of San Clemente requirements, as applicable; and</p> <ul style="list-style-type: none"> • If nighttime or weekend activities cannot be conducted to meet the local ordinance exterior noise standards, the applicant will implement additional mitigation measures, such as: <ul style="list-style-type: none"> – Reducing trucking activities to shorter periods of time; – Using low noise electrical equipment; – Installing portable noise barriers surrounding the work sites; or – Offering potentially affected residents an alternative place to stay overnight or for a weekend, as necessary. 			
<p>MM NV-2: Low-Noise Substation Equipment and Noise Barriers. The applicant will ensure that San Juan Capistrano Substation’s operational noise levels will not exceed 45 dBA at the property boundary during the period of 10 p.m. to 7 a.m. This will be achieved by ensuring that the final substation layout provides sufficient setback between the project facilities and closest residential receptors, use of low-noise substation equipment, or installation of noise barriers in the perimeter of the substation. The 230-/138-kV and 138-/12-kV transformers will be located at a minimum distance of 100 feet from the nearest residential property. The applicant will conduct a noise survey at the closest receptors to the substation once the substation is fully operational to confirm that sufficient measures have been implemented to reduce noise levels to 45 dBA at the property boundary. The applicant will submit the noise survey results to the CPUC.</p>	During Operation	Not Applicable	NTP-1 does not involve the installation of substation equipment or facilities subject to this measure.
<p>MM NV-3: Construction Vibration Control Measures. The applicant will implement the following measures to reduce construction vibration at substations, transmission lines, distribution lines, and staging areas located within 100 feet of residential and other vibration-sensitive receptors:</p> <ul style="list-style-type: none"> • Route heavily loaded trucks away from residential streets, if possible. Select streets with the fewest homes if no alternatives are available; • Operate earth-moving equipment on construction sites as far away from residential and other vibration-sensitive receptors as possible; • Phase earth-moving and ground-impacting operations so as not to occur in the same time period; • Avoid nighttime activities; • Avoid the use of vibratory rollers near noise- and vibration-sensitive areas; • Conduct pre-construction notifications for sensitive receptors located within 100 feet of construction activities within 30 days prior to construction; • Develop a construction vibration mitigation and monitoring plan during final project design to 	During Construction and Restoration	Applicable	<p>Complete. The Construction Noise and Vibration Control Plan was approved by the CPUC on 10/5/2017. Construction Noise and Vibration Control Plan will be implemented during construction and restoration.</p> <p>SDG&E sent pre-construction notification letters on 8/11/17 to sensitive receptors, residents and property owners within 230 feet of San Juan Capistrano substation.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>be reviewed and approved by the CPUC; and</p> <ul style="list-style-type: none"> Implement a compliance monitoring program during construction to ensure implementation of vibration control measures. 			
<p>MM NV-4: Corona Noise Reduction during Wet Weather Conditions. The applicant will ensure that the incremental increase in ambient noise levels from the proposed 230-kV transmission line corona noise levels will not exceed FTA Cumulative Noise Levels Allowed by Criteria (Figure 4.11-1) at the closest sensitive receptor during nighttime operations (10 p.m. to 7 a.m.). To verify compliance with this measure, the applicant will measure ambient noise levels before the proposed project's 230-kV line operations and the operational noise levels at sensitive residential receptors located within 45 feet of the 230-kV line segments. Operational noise levels will be measured during three rain events during the first two rainy seasons when the 230-kV line is operating. Reports shall provide noise measurements in Ldn and indicate the existing ambient noise levels and weather conditions during measurements. The applicant will submit measurement results to the CPUC annually. If the reports determine that the corona noise levels exceed FTA Cumulative Noise Levels Allowed by Criteria at sensitive residential receptors located within 45 feet, the applicant will implement the use of additional insulation equipment and additional technological solutions and will repeat the measuring of operational noise levels at sensitive residential receptors located within 45 feet of the 230-kV line segments during three rain events during the subsequent two rainy seasons, until the FTA Cumulative Noise Levels Allowed by Criteria threshold is no longer exceeded during rain events.</p>	During Operation	Not Applicable	NTP-1 does not include construction of the 230-kv transmission line.
<p>MM NV-5. Noise Control Plan. Prior to the start of construction, the applicant shall prepare a Noise Control Plan for the construction and restoration of the proposed project. The applicant shall submit the Noise Control Plan to the CPUC at least 30 days prior to the start of construction for review and approval. The Noise Control Plan shall include measures that the applicant shall employ during construction and restoration of the proposed project to keep generated noise levels below the Severe Impact range shown in Figure 4.11-1 (FTA 2006) of this EIR at the nearest sensitive receptors to each project construction location, in order to avoid significant impacts from temporary ambient noise increases. The Noise Control Plan shall include measures such as the following:</p> <ul style="list-style-type: none"> Install and maintain an absorptive noise control barrier in the perimeter of the San Juan Capistrano Substation construction site. Limit heavy equipment activity adjacent to residences or other sensitive receptors to the shortest possible period required to complete the work activity. Ensure that proper mufflers, intake silencers, and other noise reduction equipment are in place and in good working condition. 	Pre-construction, during Construction, and Restoration	Applicable	Complete. The Construction Noise and Vibration Control Plan was approved by the CPUC on 10/05/2017 .

South Orange County Reliability Enhancement Project
NTP-1 Request

October 2017
Page 29 of 35

Measure Not Applicable to NTP-1

Applicable to NTP-1: Measure to be Implemented During Construction/Restoration/Operation

Applicable to NTP-1: Pre-Construction Status Pending

Applicable to NTP-1: Pre-Construction Status Complete/Approved

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<ul style="list-style-type: none"> • Maintain construction equipment according to manufacturer recommendations. • Minimize construction equipment idling. • Noise from back-up alarms (alarms that signal vehicle travel in reverse) in construction vehicles and equipment shall be reduced by providing a layout of construction sites that minimizes the need for back-up alarms and using flagmen to minimize time needed to back up vehicles. • When possible, use construction equipment specifically designed for low noise emissions (i.e., equipment that is powered by electric or natural gas engines instead of diesel or gasoline reciprocating engines). Electric engines have been reported to have lower noise levels than internal combustion engines. <p>Where practical, locate stationary equipment such as compressors, generators, and welding machines away from sensitive receptors or behind barriers. The Noise Control Plan shall detail the frequency, location, and methodology for noise monitoring prior to and during various construction and restoration activities to ensure that generated noise levels do not exceed the Severe Impact range shown in Figure 4.11-1 of this EIR. The Noise Control Plan shall detail the actions and procedures that the applicant shall implement to mitigate impacts in the event that monitoring detects that noise levels have exceeded the Severe Impact range shown in Figure 4.11-1 of this EIR. Noise level measurements shall be conducted in compliance with the City of San Juan Capistrano, City of San Clemente, and Orange County requirements.</p> <p>The Noise Control Plan shall designate a Construction Relations Officer that is readily available to answer questions or respond to complaints during any hours or days that construction or restoration is occurring. The applicant shall send pre-construction notifications to sensitive receptors located within 100 feet of construction activities at least 30 days prior construction. The notification shall include a phone number for the public to contact the Construction Relations Officer. Additionally, each construction site shall include clearly visible signs with a phone number for the public to contact the Construction Relations Officer. The applicant shall submit on a monthly basis to the CPUC a summary report of the complaints submitted to the Construction Relations Officer. The summary report shall include detail on how each complaint was responded to, if and when the complaint was resolved, and contact information for the member of the public that submitted the complaint.</p>			
PUBLIC SERVICES			
<p>APM PS-1: Recreational Facility Access. Construction within existing public parks would not completely restrict access through the parks. Where necessary, SDG&E would create temporary foot and bicycle paths along with appropriate advanced notice and signage to direct and allow for the pedestrian and bicycle access through each affected park.</p>	Pre-construction, during Construction,	Not Applicable	NTP-1 activities will not affect recreational facilities or parks.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
	and Restoration		
<p>APM PS-2: Repair Damage to Public Facilities. All recreational facilities that are physically impacted during construction activities would be returned to an approximate preconstruction state, allowing for SDG&E operation and maintenance activities, following the completion of the proposed project. SDG&E would make replacements of any public damaged or removed equipment, facilities, and infrastructure, in a timely manner.</p>	During Restoration	Not Applicable	NTP-1 activities will not affect recreational facilities or parks.
<p>APM PS-3: Roadway Repair. SDG&E Contract Administrators oversee all aspects of construction and would ensure that contractors repair any damage caused by construction activities. Contract Administrators would also work with the customers and/or local agency to ensure repairs are sufficient and consistent with pre-construction conditions. Contractors working for SDG&E typically photograph and/or video document pre-construction conditions. At the completion of construction activities, this documentation is used to ensure that any damage that is caused by construction work is repaired.</p>	During Restoration	Not Applicable	NTP-1 activities will be confined to the existing substation property boundary.
<p>MM PS-1: Water Efficiency Plan. The applicant will make reasonable attempts to reduce overall water use and will reduce potable water use by at least 20 percent during drought conditions, as declared by the State of California. The applicant will be required to research reclaimed water sources and acquire reclaimed water to the greatest extent practicable. The applicant will prepare and submit a Water Efficiency Plan to the California Public Utilities Commission (CPUC) for review and approval at least 60 days prior to construction. The Water Efficiency Plan will detail the applicant’s water efficiency measures, including the use of reclaimed water, palliatives, alternative construction methods, or other measures proposed by the applicant. The Water Efficiency Plan will detail the applicant’s attempts to secure reclaimed water. In the event that a sufficient supply of reclaimed water cannot be reasonably obtained, the applicant will provide a well-documented justification for any use of potable water to be used for construction activities. If, at any time during construction, the State Water Resources Control Board (SWRCB) rescinds their Emergency Regulations (Resolution No. 2014-0038) due to a cessation of drought conditions in the state, the applicant may request that the CPUC rescind this mitigation measure. Alternatively, the applicant will need to revise their Water Efficiency Plan to remain in compliance with future adopted SWRCB regulations regarding water use during drought conditions.</p>	60 days prior to Construction, during Construction, and Restoration	Applicable	Complete. The Water Efficiency Plan was approved by the CPUC on 10/03/2017.

TRANSPORTATION AND TRAFFIC

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>APM TR-1: Avoid Traffic Near Schools. Construction generated traffic associated with the San Juan Capistrano Substation and construction of the 138kV getaways (new underground cable packages and new Pole Nos. 1a through 7a) would avoid the start and ending time for the Saddleback Valley Christian School and the Serra Catholic High School. Workers would arrive at construction sites by 7:30 AM and would not leave prior to 3:30 PM.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement this measure during NTP-1 activities.</p>
<p>APM TR-2: Avoid SR-74 Traffic. Construction generated traffic associated with the San Juan Capistrano Substation and construction of the 138kV getaways (new underground cable packages and new pole Nos. 1a through 7a) would avoid the SR-74 off ramp from I-5. Avoidance of the SR-74 and I-5 interchange would ensure that construction generated traffic would not exacerbate existing conditions on the stretch of road between the intersections of SR-74 and Rancho Viejo Road and SR-74 and Del Obispo.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement this measure during NTP-1 activities.</p>
<p>APM TR-3: Emergency Access. SDG&E would coordinate with local emergency response agencies during all construction within existing roadways. Coordination with local emergency response agencies (such as Orange County Sheriff's Department and Orange County Fire Authority) would ensure that impacts to emergency access are less than significant.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include work within existing roadways.</p>
<p>APM TR-4: Off Peak Deliveries. Deliveries would be scheduled during off-peak traffic periods to reduce trips during the most congested periods of the day.</p>	<p>During Construction and Restoration</p>	<p>Applicable</p>	<p>SDG&E will implement this measure during NTP-1 activities. The Project's SEAP training (slide 56), which is required for all construction personnel, contains all traffic related restrictions, including the scheduling of deliveries. In addition, the Project's MMCRP is included as part of all construction contracts, which mandates the adherence to all the measures outlined in the plan.</p>
<p>APM TR-5: Material Removal, City Streets. For any underground work along city streets, materials would be removed from work areas on a daily basis to minimize traffic impacts.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include underground work.</p>
<p>APM TR-6: Helicopter Use. When helicopters are in use for construction activities, designated fly yards would be kept clear of all other construction activity. If helicopters are used during construction of the proposed project, existing helicopter landing areas would be used wherever</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include helicopter use.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
feasible. Helicopter landing areas along the existing ROW would be located away from residences and other land uses (generally at least one mile from sensitive noise receptors).			
<p>APM TR-7: Traffic Control Plans. Contractors working for SDG&E would develop specific traffic control plans immediately prior to the start of construction that adhere to the Standard Traffic Control Procedure from the authority having jurisdiction (federal, state, county, city, or municipality) of the roadway being impacted. The traffic control plans would be created for the various construction phases of the San Juan Capistrano Substation, underground transmission and underground distribution segments leaving the San Juan Capistrano Substation, and overhead transmission.</p> <p>The approved traffic control plans would describe lane closures and other methods for reducing adverse construction-related traffic impacts and require SDG&E to coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles, to ensure that emergency vehicle access is maintained and that impacts to traffic flow are minimized.</p> <p>All traffic control plans would be developed, reviewed and approved by the authority having jurisdiction of the specific roadway being impacted. The traffic control plans would include vehicular and non-vehicular traffic and would be communicated to the public at least 48 hours in advance of the traffic control measures being installed in the roadway or as required by the traffic control permit.</p>	Pre-construction and during Construction and Restoration	Not Applicable	The City of San Juan Capistrano has jurisdiction over the roadways surrounding the substation property where NTP-1 activities will take place. According to the Standard Traffic Control Procedures for the City outlined in the City’s Municipal Code, Traffic Control Plans are required for work conducted within the public right-of-way (i.e. roadway). NTP-1 activities will be conducted within the substation property and no roadways would be impacted. Therefore, traffic control plans would not be required for this work and this measure is not applicable to NTP-1 activities.
<p>MM TR-2^(a): Helicopter Safety Plan and External-Load Training Program. Prior to start of construction, SDG&E must submit a Helicopter Safety Plan and External-Load Training Program prepared by qualified personnel to the CPUC. All workers that shall be present when helicopters are in use for construction of the project shall be trained regarding helicopter external loads. A sign-in sheet recording the names and dates of all individuals trained shall be maintained by SDG&E. Helicopter Safety Plan and Worker Environmental Awareness training shall include the following, at minimum:</p> <ul style="list-style-type: none"> • An overview of the general steps taken by the certified Rotorcraft External-Load Operators before starting operations, including a survey of the flight area; the typical ground worker instructions from certified Rotorcraft External-Load Operators; the ramp inspection checklist (14 CFR 133 Ramp Inspection Job Aid) and examples of typical causes of unsatisfactory ramp inspections; and the equipment typically required for Class A, B, C, and D loads as specified in 14 CFR 133; • A summary of the contents of the FAA-approved Rotorcraft Load Combination Flight Manuals applicable to external-load operations planned for the project including maximum loads (internal and external) and load types and general performance capabilities, under approved 	Pre-construction and during Construction and Restoration	Not Applicable	NTP-1 does not include the use of helicopters.

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>operating procedures and limitations, for each type of helicopter to be used;</p> <ul style="list-style-type: none"> Detailed instruction regarding the proper methods of loading, rigging, or attaching external loads and examples of improper rigging and resultant accidents and incidents; and Detailed information about planned helicopter construction techniques. <p>A safety brief, plan of operations, and refresher helicopter external-load operations training shall occur at the start of all days during which helicopter external-load operations are planned to occur. The planned flight paths, landing areas, and timing and types of helicopter construction activities for the day shall be presented. At minimum, the refresher training shall include examples load types and maximum loads (internal and external) for each type of helicopter to be used that day and a demonstration of proper external-load attaching and restraining means for all types of attaching and retraining devices that may be used.</p> <p>No SDG&E personnel or contractor, including helicopter pilots and crewmembers, shall work in proximity to or be involved with helicopter external-load operations unless they receive the initial training and attend the daily safety brief and refresher training. Signatures of all personnel and contractors that attend the daily safety brief and refresher training shall be collected and clear indication on the worker (e.g., sticker on the hardhat color-coded by training day) shall be visible to indicate that the worker, pilot, or crewperson is approved to work in proximity to or otherwise be involved with helicopter external-load operations for the day.</p>			
<p>MM TR-3: Notification and Monitoring of Helicopter Use. SDG&E will notify the Long Beach Flight Standards District Office at least one week in advance of all days during which helicopter operations are planned to occur or as required by the Flight Standards District Office. In addition, SDG&E will notify all residents, businesses, and owners of property within 0.25 miles of planned helicopter flight paths and landing areas along the Project alignment at least one week in advance of all days during which helicopter operations are planned to occur.</p> <p>In compliance with 14 CFR Part 133, the loading and unloading of all helicopter external loads shall be monitored by lineman (non-apprentice) certified by SDG&E to rig and inspect helicopter external loads.</p> <p>All accidents or incidents reported to the National Transportation and Safety Board (NTSB) or FAA shall, at the same time of reporting, be reported to the CPUC. Near misses involving helicopters that had the potential to result in an accident or incident as defined by NTSB but do not require NTSB notification, shall be recorded by SDG&E and immediately reported to the applicant's safety coordinator and the CPUC.</p>	<p>During Construction and Restoration</p>	<p>Not Applicable</p>	<p>NTP-1 does not include the use of helicopters.</p>

ATTACHMENT C: MMCRP REQUIREMENTS TRACKING TABLE

APPLICANT PROPOSED MEASURE (APM) OR MITIGATION MEASURE (MM)	TIMING	Applicability to NTP-1	STATUS
<p>MM TR-4: City of San Juan Capistrano and City San Clemente Traffic Engineer and Parks and Recreation Review. Prior to commencing work within city boundaries of San Juan Capistrano and San Clemente, the applicant shall submit a draft Traffic Control Plan (APM TR-7) for the project to the City of San Juan Capistrano and City of San Clemente traffic engineers and Parks and Recreation departments for their review. A Draft Traffic Control Plan shall be submitted according to the timeframe established by the authority having jurisdiction of the roadway or trail being impacted. The applicant shall incorporate any recommendations from this review related to bikeway, sidewalk, and unpaved trail facilities into a final Traffic Control Plan prior to com. The applicant shall provide a copy of the final Traffic control plan to the City of San Juan Capistrano, the City of San Clemente and the CPUC prior to commencing work.</p>	Pre-construction and during Construction and Restoration	Not Applicable	The City of San Juan Capistrano has jurisdiction over the roadways and trails surrounding the substation property where NTP-1 activities will take place. According to City’s Municipal Code, Traffic Control Plans are required for work conducted within the public right-of-way (i.e. roadway). NTP-1 activities will be conducted within the substation property and no roadways or trails would be impacted. Therefore, traffic control plans would not be required for this work and this measure is not applicable to NTP-1 activities.
<p>MM TR-5: Content Requirements of the Traffic Control Plan. The applicant shall include and implement the following restrictions within their Traffic Control Plan (APM TR-7):</p> <ul style="list-style-type: none"> • Lane closures along Vista Montana shall only be implemented to avoid the start and ending time for the San Juan Hills High School. Lane closures along Vista Montana shall not be allowed during the periods of 6:30 to 8:00 AM and 2:00 to 3:30 PM on days when San Juan Hills High School is in session. • Construction-generated traffic associated with the project shall avoid the start and ending time for San Juan Hills High School. Workers shall avoid traveling along Vista Montana during the periods of 6:30 to 8:00 AM and 2:00 to 3:30 PM on days that San Juan Hills High School is in session. These times shall be modified as necessary over the duration of the project in response to changing school arrival/dismissal times. <p>Additionally, a final traffic control plan shall be provided to the CPUC for approval prior to the start of construction.</p>	Pre-construction and during Construction	Not Applicable	As described above, NTP-1 activities will be conducted within the substation and would not impact a roadway or trail. The City of San Juan Capistrano’s municipal code would therefore not require a traffic control plan or permit. Therefore, this measure associated with the content of a traffic control plan would not be applicable.

Attachment D
Air Quality Memorandum



Memorandum

To: Jennifer Kaminsky, SDG&E
Cc: Devon Muto, ICF
From: Shannon Hatcher, ICF
Darrin Trageser, ICF
Date: October 4, 2017
Re: Projected South Orange County Reliability Enhancement (SOCRE) Project NTP #1
NO_x Construction Emissions Mitigation Analysis

Introduction

This memorandum discusses construction-related nitrogen oxide (NO_x) emissions associated with the SOCRE Project and required Regional Clean Air Incentive Market (RECLAIM) Trading Credits (RTCs) purchased by San Diego Gas and Electric (SDG&E) and submitted to the South Coast Air Quality Management District (SCAQMD) for construction activities associated with NTP #1 of the Project. Construction-related emissions of NO_x are compared to the SCAQMD daily NO_x significance threshold to determine whether the Project's construction-related daily NO_x emissions exceed SCAQMD's threshold. The comparison of Project-related daily NO_x emissions with SCAQMD's NO_x significance threshold¹ was performed using the pre-construction assumptions and the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Construction Emissions Mitigation Calculator (version 7.0). SMAQMD's Construction Emissions Mitigation Calculator was utilized as it is an industry-standard accepted tool to characterize construction-related emissions for mitigation measure compliance and offset calculations. The daily NO_x significance threshold of 100 pounds per day is found in the SCAQMD *Air Quality Analysis Handbook* (South Coast Air Quality Management District 2015). Maximum daily NO_x emissions that would occur during any given day of construction activities associated with NTP #1 within SCAQMD's jurisdiction would not exceed SCAQMD's daily construction threshold of 100 pounds per day and no RTCs are required to be purchased.

Environmental Impact Report Mitigation Requirements

Mitigation Measure AQ-1 from the SDG&E SOCRE Project Final Environmental Impact Report (FEIR) indicates that every pound of daily construction-related NO_x emissions in excess of SCAQMD's daily NO_x threshold shall be mitigated through the purchase of RTCs. Language from Mitigation Measure AQ-1 is included below.

¹ All of the NTP activities are located within the South Coast Air Basin, under the oversight of the SCAQMD.



Mitigation Measure AQ-1: Oxides of Nitrogen (NO_x) Credits

The emissions of NO_x due to construction of the proposed project will be mitigated through the purchase of Regional Clean Air Incentive Market Trading Credits (RTCs) for every pound of NO_x emissions in excess of the SCAQMD regional significance threshold of 100 pounds per day. The total amount of NO_x RTCs to be purchased will be calculated when the construction schedule is finalized. The applicant will purchase and submit the required RTCs to the SCAQMD at least 60 days prior to the start of each construction year for the upcoming year of construction. The applicant will also track actual daily emissions during construction according to a monitoring plan that includes records of equipment and vehicle usage.

Pre-Construction assumptions (i.e., construction equipment, number of hours each equipment piece will operate, etc.) associated with projected construction activities that are projected to occur in NTP #1 of the Project is provided in Appendix A.

Projected Pre-Construction Emissions and Offsets

Appendix A presents equipment inventory and operating schedule data from the pre-construction assumptions, which were input into SMAQMD's Construction Emissions Mitigation Calculator.

Appendix B presents the calculations and model outputs used to estimate maximum Project-related daily NO_x emissions in units of pounds per day, estimated from SMAQMD's Construction Emissions Mitigation Calculator for construction associated NTP #1. Table 1 below summarizes the results of the emissions modeling summarized in Appendix B and compares them to SCAQMD's NO_x emissions threshold. These emissions presented in Appendix B and Table 1 represent the maximum amount of emissions that would occur during any given day of NTP #1 construction activities.

Pursuant to Mitigation Measure AQ-1, RTCs are required to be purchased only if NO_x emissions are in excess of SCAQMD's daily construction NO_x threshold of 100 pounds per day. As indicated in Table 1 and in Appendix B, NO_x maximum daily emissions associated with NTP #1 construction activities are projected to amount to 1.62 pounds per day, which is below SCAQMD's daily construction threshold of 100 pounds per day. Therefore, no RTCs are required to be purchased for the NTP # 1 activities.

Table 1. Summary of NTP #1 Maximum Daily Construction Emissions and Offsets

Offset Calculations	NO_x
Project Emissions (pounds/day)	1.62
SCAQMD Construction Emissions Threshold (pounds/day)	100
Offsets Required to be Purchased (pounds)	0
Offset Fees Required to be Purchased	0



References

Sacramento Metropolitan Air Quality Management District. 2017. Construction Mitigation Tool. Available: <http://www.airquality.org/businesses/ceqa-land-use-planning/mitigation>. Accessed: August 17, 2017.

South Coast Air Quality Management District. 2015. *SCAQMD Air Quality Significance Thresholds*. Available: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>. Accessed: July 26, 2017.

Appendix B

SMAQMD Construction Mitigation Program - Results

Version 7.0

10/4/2017 16:50

Project Name: SDG&E SOCRE Environmental Compliance

Overall Life-Of-Project (LOP) Emissions

Project Start Date: 09/20/2017

Comparison of your project fleet's emissions with the statewide average for construction equipment					
		NOx	ROG	PM10	PM2.5
Project fleet and statewide average construction equipment emission rates (g/bhp-hr)					
Your fleet's emission factors based on data entered >>	Project Fleet	1.73	0.16	0.01	0.01
Calculator estimated statewide average emission factors >>	Statewide Average	4.57	0.53	0.28	0.26
	Absolute Reduction	2.84	0.37	0.27	0.25
	Percent Reduction	62%	70%	96%	96%
Project fleet construction equipment average daily emissions (lbs/day)					
	Project Fleet	1.62	0.15	0.01	0.01
Project haul truck(s) daily emissions					
		NOx	ROG	PM10	PM2.5
Project haul truck(s) average daily emissions (lbs/day)					
	Project Fleet	N/A	N/A	N/A	N/A
Project construction equipment and haul truck total emissions					
		NOx	ROG	PM10	PM2.5
Project total construction equipment and haul truck average daily emissions (lbs/day)					
Days Equipment will be Used on the Project: 3	Construction Equipment	1.62	0.15	0.01	0.01
Days of Hauling:	Haul Truck(s)	N/A	N/A	N/A	N/A
	Total	1.62	0.15	0.01	0.01

NOTE: No haul truck VMT information provided.

SMAQMD Construction Mitigation Program - Outputs for Construction Equipment

Life-Of-Project (LOP) Off-road Equipment Emissions

Input Characteristics						
LINE	Type of Equipment	Engine Year	Engine Age	Number of Years Since Last Engine Rebuild	Engine HP	Estimated Total Hours of Operation for the Project
1	Off-Highway Trucks	2012	5	No Rebuild	215	6
2	Tractors/Loaders/Backhoes	2015	2	No Rebuild	74	18
3	Skid Steer Loaders	2015	2	No Rebuild	49	16
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						

