

**Sunrise Powerlink Visual Resources Mitigation
Compliance Plan
for Mountain Springs Grade
Engineering Segment**

For

Sunrise Powerlink Project



July 2009

1.0 INTRODUCTION

1.1 Project Background and History

The Sunrise Powerlink Project (Project), a 500kV/230kV transmission line, has completed a three year environmental review process. San Diego Gas & Electric (SDG&E) received a decision from the California Public Utility Commission (CPUC) and the Bureau of Land Management (BLM) that the Sunrise Powerlink transmission line will follow the Final Environmentally Superior Southern Route (FESSR) identified in the project Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The CPUC issued a Certificate of Public Convenience and Necessity (CPCN) on December 18, 2008 and the BLM issued a Record of Decision (ROD) on January 20, 2009. The CPUC and BLM adopted the mitigation measures in the Final EIR/EIS including several visual resource mitigation measures.

1.2 Purpose of this Document

It is SDG&E's goal to install foundation micropiles at twenty structure locations for the Mountain Springs Grade (MSG) section of the Sunrise Powerlink Project starting October 1, 2009. The request to construct these micropile foundations is due to severe construction schedule limitations associated with the presence of Desert bighorn sheep critical habitat in the proposed work area. The purpose of this document is to demonstrate compliance with identified visual mitigation measures to the CPUC and BLM to obtain the Notice to Proceed with the construction of the Mountain Springs Grade micropile foundations between October 1 and December 31, 2009.

1.3 Mountain Springs Grade Segment Location and General information

The MSG section proposed for micropile construction starting in October 2009, is between Mile Post (MP) 23 and 29 and includes structures P281 through P261-1. The location, mileposts and structures are shown on **Figure 1-1** (See Figures Appendix). It should be noted that this segment is parallel to the existing Southwest Powerlink (SWPL) 500 kV transmission line in extremely rugged terrain. Elevations in this section range from 900 feet to over 3,400 feet above sea level. The structures will be lattice to match the existing SWPL structures and are sited within 400 feet of the existing right-of-way. Like the SWPL line, this portion of the Project route will be constructed and maintained using helicopters. The land is BLM with one private parcel (Western Wireless) at the western end.

In the MSG foundation construction section, the topography prohibits "conventional" foundation installation. Conventional foundation installation includes using a pressure digger to vertically bore caisson foundations, installing rebar and placing concrete to a specified diameter and depth. The method to be utilized at MSG will be "micropiles" below grade with a concrete pile cap installed above grade. Micropiles are installed by a small drilling machine digging a series of 8 - 10' diameter holes, installing steel casing and steel rods in the holes and then utilizing a high pressure grout to fill the casing. Tangent structures have a range of 4 to 8 micropiles in each leg and there are 4 legs per structure. Angle and dead-end structures have 8 to 12 micropiles per leg.

All personnel, equipment and materials utilized at MSG will be inserted by light and medium lift helicopters. Personnel and materials will be inserted and extracted daily, equipment will be inserted at the beginning of the work process and then transferred from one structure to another as the work progresses. Grout will be mixed at a staging area and flown to the site. Some boulder anchoring and/or fracturing will be required to stabilize the work site and to insure worker safety.

1.4 Mountain Springs Grade Visual Mitigation Measures

A spreadsheet table entitled Mitigation Measures Applicable by Element, Segment and Structures for visual resource mitigation was provided to SDG&E by the CPUC. **Table 1-1** (See Table Appendix) includes the applicable visual mitigation measures and with those measures that are applicable to the MSG section highlighted.

The list below also identifies the applicable visual mitigation measures from the Sunrise Powerlink Project Final EIR/EIS.

— V-1a: Reduce visibility of construction activities and equipment.	Substation construction sites and all staging and material and equipment storage areas including storage sites for excavated materials, and helicopter fly yards shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided.
— (V-1a) Reduce visibility of construction activities and equipment.	SDG&E shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction. Where the project crosses lands administered by other public agencies (e.g., Forest Service, Anza-Borrego Desert State Park), construction plans shall also be submitted to those agencies for review and approval within the same 60-day timeframe.
— V-1b: Reduce construction night lighting impacts.	SDG&E shall design and install all lighting at construction and storage yards and staging areas and fly yards such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized.
— (V-1b) Reduce construction night lighting impacts.	<p>SDG&E shall submit a Construction Lighting Mitigation Plan to the BLM (only if on BLM lands), Forest Service (only if on National Forest lands), Anza-Borrego Desert State Park (for Park lands) and CPUC (for all areas) for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the reviewing agency. The Plan shall include but is not necessarily limited to the following:</p> <ul style="list-style-type: none"> • Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary • All lighting shall be of minimum necessary brightness consistent with worker safety • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied

— (V-2a) Reduce in-line views of land scars.	<p>All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:</p> <ul style="list-style-type: none"> • Definition of access roads with sensitive viewing areas from which visibility of access roads is a concern. • Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design. • “Drive and crush” access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover. • A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each access road (i.e., retain straight line roads due to greater impacts from alternative routes, use “drive and crush” access, or develop alternate access road route).
— (V-2a) Reduce in-line views of land scars.	SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM, as well as the Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.
— V-2b: Reduce visual contrast from unnatural vegetation lines.	In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter clean-up until all vegetation removed returns to its pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.
— (V-2b) Reduce visual contrast from unnatural vegetation lines.	SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.
— (V-2c) Reduce color contrast of land scars on non-Forest lands.	SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

V-3a: Reduce visual contrast of towers and conductors.	<p>The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans, in order to reduce the degree of visual contrast caused by the new towers and conductors:</p> <ul style="list-style-type: none"> • All new conductors and re-conducted spans are to be non-specular in design in order to reduce conductor visibility and visual contrast. • All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Sensitive viewing locations have been defined by Cleveland National Forest as campgrounds, trailheads, trails, wilderness areas, backcountry roads, heavily traveled roads, and overlooks. Access roads of concern are those that would be visible as they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following: <ul style="list-style-type: none"> • Definition of towers with sensitive viewing areas from which visibility of access roads is a concern. • Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design. • "Drive and crush" access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover. • A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each tower (i.e., retain straight line roads due to greater impacts from alternative routes, use "drive and crush" access, or develop alternate access road route.
C-6f: Reduce adverse visual intrusions to the Desert View Tower viewshed.	<p>Visual intrusion to the Desert View Tower viewshed, caused by the aboveground portion of this alternative shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. Specific measures to minimize visual effects to the Desert View Tower shall be developed in consultation with the owner of this resource. If this alternative is constructed, SDG&E shall develop a protection plan for the Desert View Tower viewshed that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options. The report shall be provided to the CPUC and BLM for review and approval at least 60 days before the start of construction.</p>
VR-APM-1	<p>At highway, canyon, and trail crossings, structures shall be placed at the maximum feasible distance from the crossing to reduce visual impacts as long as other significant resources are not negatively affected. (SDG&E)</p>
VR-APM-3	<p>Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects. (SDG&E)</p>
VR-APM-4	<p>No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. (SDG&E)</p>
VR-APM-5	<p>Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence where possible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts. (SDG&E)</p>
VR-APM-6	<p>In scenic view areas as designated by land management agencies, structures would be placed to avoid sensitive features and/or allow conductor to clearly span the features, within limits of standard design where possible. (SDG&E)</p>

2.0 MITIGATION MEASURES BY STRUCTURE

This section identifies the visual mitigation measures that apply to each structure in the MSG foundation construction section. **Table 2-1** (see Table Appendix) cross references the visual mitigation measures that apply to each structure within the MSG section and provides additional engineering detail per structure as well as locations from which visual simulations were developed. Additionally, **Figure 2-1** (See Figure Appendix) includes a map that depicts the engineering detail in this section.

Figure 2-2 (See Figure Appendix) identifies the photographic point locations from which visual simulations were developed. The visual simulations included in the Appendix illustrate the expected visual condition of the Sunrise Powerlink with the above mentioned mitigation measures applied. The process used to prepare these simulations includes 3-D computer modeling to develop photo simulations. The model accurately depicts the height, mass, and color of the proposed structures based on the proposed engineering design. The model is accurately placed onto the photographs of the existing site conditions by matching a Lidar 15 meter SRM terrain surface model to the ridges and valleys present in the site photos and GPS positioning of the camera location. The scene was illuminated to match the lighting at the time of day when the existing photos were taken. The tower numbers of the towers that are visible in each simulation are provided in the black strip along the bottom of the proposed views. These tower references are also crossed referenced on **Table 2-1**.

3.0 PROJECT COMPLIANCE WITH VISUAL MITIGATION MEASURE

This section demonstrates the Sunrise Powerlink Projects compliance with each visual mitigation measure that is applicable to the MSG foundation construction section. A detailed engineering map book depicting the specific structure locations and work sites is included as **Figure 3-1**.

V-1a: Reduce Visibility of Construction Activities and Equipment.

Mitigation Measure V-1a states the following:

Substation construction sites and all staging and material and equipment storage areas including storage sites for excavated materials, and helicopter fly yards shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided.

SDG&E shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction. Where the project crosses lands administered by other public agencies (e.g., Forest Service), construction plans shall also be submitted to those agencies for review and approval within the same 60-day timeframe.

As shown on **Table 2-1** and in **Figure 2-1**, there are no substations within this section.

For this segment, the helicopter fly yard activities and refueling will be conducted at the Jacumba Airport. Since this is an existing facility with existing lighting and helicopter operations, there would be no additional visual impacts from using this facility as a fly yard and refueling location.

The only proposed equipment and material storage area would be next to an existing Texaco Station in Ocotillo. The area that will be used for storage will be fenced to provide security for materials that are stored overnight. There is no lighting proposed or permanent alteration for this storage area, which will be used for a maximum of three months.

Because there are no new substation construction sites or helicopter fly yards and the only new material and equipment storage area will be adjacent to an existing Texaco Station, there will be no additional or new visual impacts.

As identified above, the equipment storage adjacent to the Texaco Station would be visually screened using temporary fencing. Consistent with the visual mitigation measure, this fencing will be an appropriate design and color for the location which is adjacent to an industrial service facility.

There are no new construction areas proposed for the foundation micropile completion that are visible from recreation facilities or areas that see heavy recreation use during holidays or at any other time.

V-1b: Reduce construction night lighting impacts.

Mitigation Measure V-1b states the following:

SDG&E shall design and install all lighting at construction and storage yards and staging areas and fly yards such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized.

There are no plans to provide additional lighting for the fly yard at the Jacumba Airport or at the equipment storage area that will be adjacent to the Texaco Station in Ocotillo. The existing lighting at those facilities will satisfy any lighting necessary lighting requirements.

If it is decided that additional lighting is required at these sites, SDG&E would design and install all lighting so that light bulbs and reflectors are not visible from public viewing areas; so the lighting does not cause reflected glare; and so illumination of the project facilities, vicinity, and nighttime sky is minimized. The lighting will be designed so exterior light fixtures are hooded, with light directed downward or towards the areas to be illuminated and so that backscatter to the nighttime sky is minimized. The light shielding will prevent light trespass outside the project boundary. Additionally, all lighting shall be of the minimum necessary brightness to be consistent with worker safety.

V-2a: Reduce in-line views of land scars.

Mitigation Measure V-2a states the following:

All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:

- Definition of access roads with sensitive viewing areas from which visibility of access roads is a concern.*
- Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.*
- “Drive and crush” access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.*
- A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each access road (i.e., retain straight line roads due to greater impacts from alternative routes, use “drive and crush” access, or develop alternate access road route).*

As demonstrated on **Table 2-1** and **Figure 2-1**, there are no access roads proposed to be constructed for the foundation construction activities on MSG and therefore this visual mitigation measure is not applicable to the upcoming construction activities.

V-2b: Reduce visual contrast from unnatural vegetation lines.

Mitigation Measure V-2b states the following:

In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter clean-up until all vegetation removed returns to its pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.

As stated above, there are no access roads proposed for the proposed foundation construction and therefore, there will be no land scars created from access roads.

There will be some activities in this segment associated with drilling the pilings where existing boulders may need to be removed or reduced in size. If so, they will be broken into pieces and replaced once the micropilings are established.

Where boulder removal is necessary, hydraulic rock splitting (boulder blaster) will be used. This method uses shotgun type and size cartridges in a polymer/water blend within a 1.5-2.0 inch drill hole. Multiple drill holes are generally required; a rock drill is the preferred type of equipment but a jackhammer maybe used as well.

If a dangerous boulder is encountered (one that poses a rolling threat) a rock bolt would be used to stabilize the boulder. A hole would be drilled through the boulder into a suitable, stable rock formation making sure that the rock bolt is not being installed in soil. A deformed bar would then be installed in the drilled hole and grouted in place. After sufficient time for the grout to set, a washer and nut would be installed on top of the boulder and tightened.

The moved boulders would be replaced to the extent possible so that their exterior, weathered surfaces are exposed so they are consistent in color with the boulders that have not been fractured and moved. If this is not possible and the replaced boulders create a visual contrast to the local landscape, the moved boulders would be treated to appear weathered so no visible contrast remains. Rock staining using Eonite brand or equivalent is proposed for application to the lighter surfaces of rocks and boulders exposed by rock splitting operations. The new surfaces would be stained to match the value and hue of the immediately adjacent weathered rock and boulders.

V-3a: Reduce visual contrast of towers and conductors.

Mitigation Measure V-3a states the following:

The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans, in order to reduce the degree of visual contrast caused by the new towers and conductors:

- All new conductors and re-conducted spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.*
- All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Sensitive viewing locations have been defined by Cleveland National Forest as campgrounds, trailheads, trails, wilderness areas, backcountry roads, heavily traveled roads, and overlooks. Access roads of concern are those that would be visible as they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures. Prior to final design, SDG&E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following:*
 - Definition of towers with sensitive viewing areas from which visibility of access roads is a concern.*
 - Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.*
 - “Drive and crush” access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.*
 - A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each tower (i.e., retain straight line roads due to greater impacts from alternative routes, use “drive and crush” access, or develop alternate access road route.*

Along the MSG foundation construction section, the proposed structures would be visible to travelers along I-8 and to visitors at the Desert View Tower at a distance. Galvanized steel lattice type structures are proposed for this section of the Project. These gray lattice structures allow the natural landscape in the background to be seen through the structure helping make it less visible. Most of the structure sites along this segment have a rugged, steep landscape with scattered boulders. The contrast between the light colored rocks and the dark shadows created by crevices create an irregular background that helps camouflage the structures. This can be seen in the existing gray lattice SWPL structures. The intent of the proposed design is to match these conditions.

Dulling treatments are proposed for the towers to reduce the shininess of the metal and to accelerate the weathering to match the existing SWPL structures. The most visible towers are scheduled for chemical dulling to produce matte surfaces on galvanized structural steel members, spacer dampers, hangers and other hardware used to hang the conductors.

Towers directly visible from I-8 and/or the Desert View Tower are scheduled for this treatment and include tower numbers P255 through P265-1, P267-1 through P-272-1, P-275-1 and 276-1, and 278-1 through P292-1.

SDG&E will use non-specular conductors in order to reduce conductor visibility and visual contrast. Low-specular wire is specified for the static lines as well as the conductor lines for the entire length of the corridor.

The following simulations were developed to present the existing visual condition and to simulate the proposed line and structures. The locations of these simulations are included in **Figure 2-2**.

- Eastbound I-8 west of In-Ko-Pah Road Looking Northeast
- Westbound I-8 west Ocotillo at Mountain Springs Grade looking South
- Eastbound I-8 west of Ocotillo at toe of Mountain Springs Grade looking North
- Westbound I-8 west Ocotillo at the Line Crossing looking West

As seen in the existing condition in each simulation, the SWPL line is visible. The proposed Sunrise Powerlink alignment will also be visible and presents additional features in the viewshed. The overall impact of the addition of the Sunrise Powerlink would be greater if its towers did not match span, height and color with the SWPL line to the extent possible.

There are no new access roads proposed for the foundation construction work in this section. There is no requirement for the absence of impacts to be evaluated for their visibility from sensitive viewing locations prior to final design.

Table 2-1 documents the structures for which this measure is applied

C-6f: Reduce adverse visual intrusions to the Desert View Tower viewshed.

Visual intrusion to the Desert View Tower viewshed, caused by the aboveground portion of this alternative shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. Specific measures to minimize visual effects to the Desert View Tower shall be developed in consultation with the owner of this resource. If this alternative is constructed, SDG&E shall develop a protection plan for the Desert View Tower viewshed that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options. The report shall be provided to the CPUC and BLM for review and approval at least 60 days before the start of construction.

SDG&E designed this section of the line to minimize visual intrusion to the extent possible. The goal was to match the locations of the proposed Sunrise Powerlink structures with the existing SWPL structures in order to minimize visual impacts. Additionally, this area has rugged terrain and varying topography, and this, coupled with

the required span lengths and the locations of existing SWPL structures, limited the possible locations for the new Sunrise Powerlink structures.

The following simulations were developed to present the existing visual conditions and to simulate the proposed Sunrise Powerlink structures from Desert View Tower: The locations of these simulations are represented in **Figure 2-2**.

- Desert View Tower looking South
- Desert View Tower looking Northeast
- Desert View Tower looking East

As discussed earlier, galvanized steel lattice type structures are proposed for this section of the project. This design will match the existing SWPL structures and make the Sunrise Powerlink right-of-way less intrusive.

In combination the structure placement, structure type and height and color have all been selected to minimize visual intrusions to the extent possible from the Desert View Tower.

In addition, SDG&E's cultural resource contractor, ASM Affiliates, Inc. conducted a Class III Survey of the Historic Built Environment for the Mountain Springs Grade segment including a distance of up to 0.5 miles from the project Area of Potential Effect. That report has been submitted under a separate cover to the BLM for submission to the California State Historic Preservation Office for concurrence with the findings. The evaluation of impacts includes impacts to the Desert View Tower as it relates to this mitigation measure. The report is included in the Letter Appendix.

VR-APM-1

Mitigation Measure VR-APM-1 states the following:

At highway, canyon, and trail crossings, structures shall be placed at the maximum feasible distance from the crossing to reduce visual impacts as long as other significant resources are not negatively affected. (SDG&E)

SDG&E has designed this route segment to reduce visual impacts to the extent possible at highway, canyon, and trail crossings. Due to the rugged terrain and varying topography, locations for structure placement are limited. Additionally, matching structures with the existing SWPL line is important in minimizing visual impacts associated with the Sunrise Powerlink. This reduces the relative visibility of the additional structures by matching structure location, size and type. The visual simulations present the existing and proposed conditions and demonstrate that the placement of the proposed Sunrise Powerlink structures were selected to balance the engineering requirements associated with the rugged, steep topography with minimizing visual impact.

VR-APM-3

Mitigation Measure VR-APM-3 states the following:

Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects. (SDG&E)

SDG&E has designed this route segment to parallel the existing SWPL transmission line, to match the spacing of structures on SWPL and to match the existing transmission structures to the degree possible. This is demonstrated on **Figure 3-1** and depicted on the visual simulations.

VR-APM-4

Mitigation Measure VR-APM-4 states the following:

No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. (SDG&E)

This segment will be developed using helicopter construction so construction activities along the route will be limited to the tower locations. Therefore, SDG&E will not use paint or permanent discoloring agents to rocks or vegetation along this segment to avoid the potential of creating new colors that would highlight the corridor. However, as discussed earlier, if large boulders need to be broken at individual tower locations to facilitate construction in those areas and they must be replaced with their newly cut, unweathered surfaces are exposed, staining the broken rocks will be considered on a case-by-case basis to color the newly broken rock faces to blend with the surrounding rocks.

VR-APM-5

VR-APM-5 states the following:

Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence where possible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts. (SDG&E)

There are no residences within or near the corridor in this route segment so no transmission structures would be installed directly in front of residences. Also, no towers will be placed in direct line-of-sight from a residence.

VR-APM-6

Mitigation Measure VR-APM-6 states the following:

In scenic view areas as designated by land management agencies, structures would be placed to avoid sensitive features and/or allow conductor to clearly span the features, within limits of standard design where possible. (SDG&E)

There are no designated scenic areas within this segment of the Project so this measure would not apply.

4.0 Conclusion

As demonstrated in this plan, SDG&E will comply with the visual mitigation measures for the MSG micropile foundation construction section. Each measure has been considered under the engineering design and will be implemented during construction as outlined above. Demonstration of the compliance with the mitigation measure applicable to this section should result in a Notice to Proceed with foundation construction in the MSG section of the Sunrise Powerlink Project.

Figures Appendix

Tables Appendix

Simulation Appendix

Letter Appendix